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BRISTOL ISWMF

Solid Waste Permit No. 588 August 2026 Monthly Compliance Report

CITY OF BRISTOL | 2655 Valley Drive, Bristol, VA 24201 | 276-645-7233

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Table of Contents

Introduction	1
1 GAS COLLECTION	1
Surface and Leachate Collection Emissions	1
Surface Emissions	1
Monitoring of Leachate Collection Components	2
Existing Gas Extraction System Performance	3
Comparison with Manual Temperature Measurements	5
Monthly Regulatory Wellhead Temperature Measurements	6
LFG Sampling	7
2 SIDEWALL ODOR MITIGATION	8
Perimeter Gas Collection System	8
Sidewall Odor Mitigation System	8
Pilot System	8
Full System Operation	8
3 WASTE TEMPERATURE MONITORING	8
Summary of Waste Temperature Monitoring	9
Operational Challenges	10
Temperature Profiles	10
4 LEACHATE EXTRACTION AND MONITORING	14
Dewatering Pump Operations and Maintenance	14
Total LFG Liquids Removal	14
LFG Liquids Pump Operations and Maintenance	15
Pump Maintenance Activities	15
Wells with Inactive Pumps	16
Sampling and Analysis Plan	16
5 SETTLEMENT MONITORING AND MANAGEMENT	16
Settlement Monitoring and Management Plan	17
Monthly Surveys	17
Topographic Data Collection	17
Settlement Plate Surveys	23
6 INTERMEDIATE COVER AND GEOMEMBRANE COVER SYSTEM	25

Intermediate Cover Installation	25
Geomembrane Cover System Design	25
Geomembrane Cover System Procurement	26
Geomembrane Cover System Installation	26

7 STORMWATER MANAGEMENT 26

8 MISCELLANEOUS 26

Cease Waste Acceptance	26
Long-Term Plan	26
Monthly Compliance Reports	26
Community Outreach Program	26

Figures

Figure 1. Monthly Average Automated Wellhead Temperatures	4
Figure 2. Automated vs. Manual Temperature Measurements	6
Figure 3. CO vs H ₂ Concentration from gas wells in August 2026 with historical trend	7
Figure 4. Temperature Monitoring Probe Locations	9
Figure 5. TP-1 Average Temperatures for the Months of March 2023, April 2024, March 2025, March 2026, June 2026, and July 2026	11
Figure 6. TP-5 Average Temperatures for the Months of March 2023, March 2024, March 2025, March 2026, June 2026, and July 2026	12
Figure 7. TP-8 Average Temperatures for the Months of March 2023, March 2024, March 2025, March 2026, June 2026, and July 2026	13
Figure 8. TP-9 Average Temperatures for the Months of March 2023, March 2024, March 2025, March 2026, June 2026, and July 2026	14
Figure 9. Total Dewatering Liquid Removal	15
Figure 10. Aerial Photo of the SWP No. 588 Landfill	17
Figure 11. Vegetation Growth on Quarry Sidewalls	18
Figure 12. 1-Month Elevation Change Map	19
Figure 13. 3-Month Elevation Change Map	21
Figure 14. 1-Year Elevation Change Map	22
Figure 15. Settlement Plate Locations	23
Figure 16. Elevation Change of Select Settlement Plates Over Time	25

Tables

Table 1. Summary of August Surface Emissions Monitoring	1
Table 2. Leachate Cleanout Pipe Monitoring Results	2
Table 3. August Temperature Exceedance Summary	6
Table 4. LFG Wellhead Sampling Summary	7
Table 5. Average SOMS Gas Composition	8
Table 6. Elevation and Strain Data at Settlement Plate Locations	24

Appendices

Appendix A	Surface Emissions Monitoring Summary
Appendix B	In-Waste Temperatures on Select Days in January
Appendix C	Daily Wellhead Temperature Averages
Appendix D	Solid Waste Permit 588 Daily Borehole Temperature Averages
Appendix E	Monthly Topography Analysis
Appendix F	Leachate Sampling Results
Appendix G	LFG Dewatering Pump Stroke Data Analysis

Introduction

On behalf of the City of Bristol, Virginia (City), SCS Engineers has prepared this report to the Virginia Department of Environmental Quality (VDEQ) in accordance with Item 8.iii in Appendix A of the Consent Decree between the City and VDEQ. This report provides updates regarding the progress towards completion of the items outlined in Appendix A of the Consent Decree between the City and VDEQ. The following sections outline progress during the month of August 2026 related to Solid Waste Permit (SWP) No. 588.

1 GAS COLLECTION

The following sections describe the steps the City, in collaboration with its consultants and contractors, has taken to improve the operation, monitoring, and performance of the facility's landfill gas collection and control system (GCCS).

Surface and Leachate Collection Emissions

SURFACE EMISSIONS

SCS performed surface emissions monitoring on August 5, 2026; August 12, 2026; August 19, 2026; and August 26, 2026. These weekly surface emissions monitoring (SEM) events were performed in accordance with Item 1.i in Appendix A of the Consent Decree between the City and VDEQ. SCS also performs quarterly SEM at the landfill in accordance with regulatory requirements.

The details and results of the SEM are included in Appendix A. A summary of the outcomes is provided in Table 1.

Table 1. Summary of August Surface Emissions Monitoring

Description	August 5, 2026	August 12, 2026	August 19, 2026	August 26, 2026
Number of Points Sampled	168	168	168	168
Number of Points in Serpentine Route	100	100	100	100
Number of Points at Surface Cover Penetrations	68	68	68	68
Number of Exceedances	0	0	0	0
Number of Serpentine Exceedances	0	0	0	0
Number of Pipe Penetration Exceedances	0	0	0	0

GAS COLLECTION

During the four weekly monitoring events conducted in August, there were no locations where a methane concentration above the regulatory threshold was recorded.

MONITORING OF LEACHATE COLLECTION COMPONENTS

Monitoring of the leachate, witness zone, northern cleanouts, and gradient control clean-outs at the southern end of the landfill occurred on August 3, 2026. The results of that monitoring are included in **Table 2**. Where possible (i.e. where minimal vacuum wasn't already applied), adjustments were made to reduce the applied vacuum at wells with oxygen concentrations greater than 5%.

Table 2. Leachate Cleanout Pipe Monitoring Results

Description	ID#	Record Date	CH4 (% by Vol)	CO2 (% by Vol)	O2 (% by Vol)	Balance Gas (% by Vol)	Initial Temp (°F)	Adj Temp (°F)	Initial Static Pressure (in H2O)	Adj Static Pressure (in H2O)	System Pressure (in H2O)
Southern Cleanouts Gradient West	LC-01	8/3/2026 2:25:19 PM	5.5	0.9	19.5	74.2	92.9	93.1	-28.09	-27.49	-27.94
Southern Cleanouts Gradient East	LC-02	8/3/2026 2:27:31 PM	3.2	0.4	20.1	76.4	90.8	91.1	-27.56	-27.06	-26.77
Southern Cleanouts Leachate Center	LC-03	8/3/2026 2:07:22 PM	17.8	6.1	16.0	60.1	88.8	88.7	-24.33	-24.33	-26.68
Southern Cleanouts Witness East	LC-04	8/3/2026 2:04:37 PM	7.8	1.3	20.0	71.0	87.5	87.8	-26.70	-26.80	-26.18
Southern Cleanouts Leachate West	LC-05	8/3/2026 2:22:47 PM	6.8	1.2	19.5	72.6	93.2	93.5	-26.89	-27.56	-26.36
Southern Cleanouts Gradient Center West	LC-06	8/3/2026 2:19:19 PM	3.7	0.9	20.2	75.3	87.9	88.2	-27.31	-27.20	-28.17
Southern Cleanouts Leachate East	LC-08	8/3/2026 2:10:18 PM	9.9	2.0	18.8	69.3	90.0	90.1	-28.15	-27.20	-27.69
Southern Cleanouts Gradient Center East	LC-09	8/3/2026 2:16:46 PM	13.2	2.7	17.8	66.3	91.9	92.1	-28.33	-27.62	-28.12
Southern Cleanouts Leachate West	LC-10	8/3/2026 2:13:19 PM	19.7	6.6	15.4	58.3	91.9	92.1	-27.82	-27.32	-27.22
Northern Cleanouts Leachate East	NC-01	8/3/2026 2:36:48 PM	0.4	0.1	21.0	78.6	92.8	93.7	-33.46	-33.44	-33.36
Northern Cleanouts Leachate Center	NC-02	8/3/2026 2:42:08 PM	0.1	0.0	21.2	78.7	92.8	93.0	-33.58	-33.50	-33.46

GAS COLLECTION

Description	ID#	Record Date	CH4 (% by Vol)	CO2 (% by Vol)	O2 (% by Vol)	Balance Gas (% by Vol)	Initial Temp (°F)	Adj Temp (°F)	Initial Static Pressure (in H2O)	Adj Static Pressure (in H2O)	System Pressure (in H2O)
Northern Cleanouts Leachate West	NC-03	8/3/2026 3:02:08 PM	0.1	0.0	20.9	79.0	85.4	85.7	-33.17	-33.30	-33.42
Northern Cleanouts Witness East	NC-04	8/3/2026 2:43:54 PM	1.0	0.1	20.9	78.1	88.8	89.6	-32.80	-33.15	-33.23
Northern Cleanouts Witness Center	NC-05	8/3/2026 2:55:40 PM	9.0	1.0	18.8	71.2	87.7	88.1	-32.79	-32.83	-33.43
Northern Cleanouts Witness West	NC-06	8/3/2026 2:58:41 PM	0.3	0.0	20.9	78.8	84.5	84.7	-32.49	-32.18	-33.63
Northern Cleanouts Gradient East	NC-07	8/3/2026 2:46:23 PM	0.2	0.2	20.9	78.8	90.7	91.0	-33.46	-33.41	-33.44
Northern Cleanouts Gradient Center East	NC-08	8/3/2026 2:50:12 PM	3.3	0.5	20.6	75.7	89.4	89.5	-33.50	-33.49	-33.49
Northern Cleanouts Gradient Center West	NC-09	8/3/2026 2:53:24 PM	0.0	0.0	20.8	79.1	87.7	87.7	-33.20	-33.18	-33.40
Northern Cleanouts Gradient West	NC-10	8/3/2026 3:04:48 PM	0.1	0.0	20.9	79.0	86.1	86.3	-33.25	-33.18	-33.36

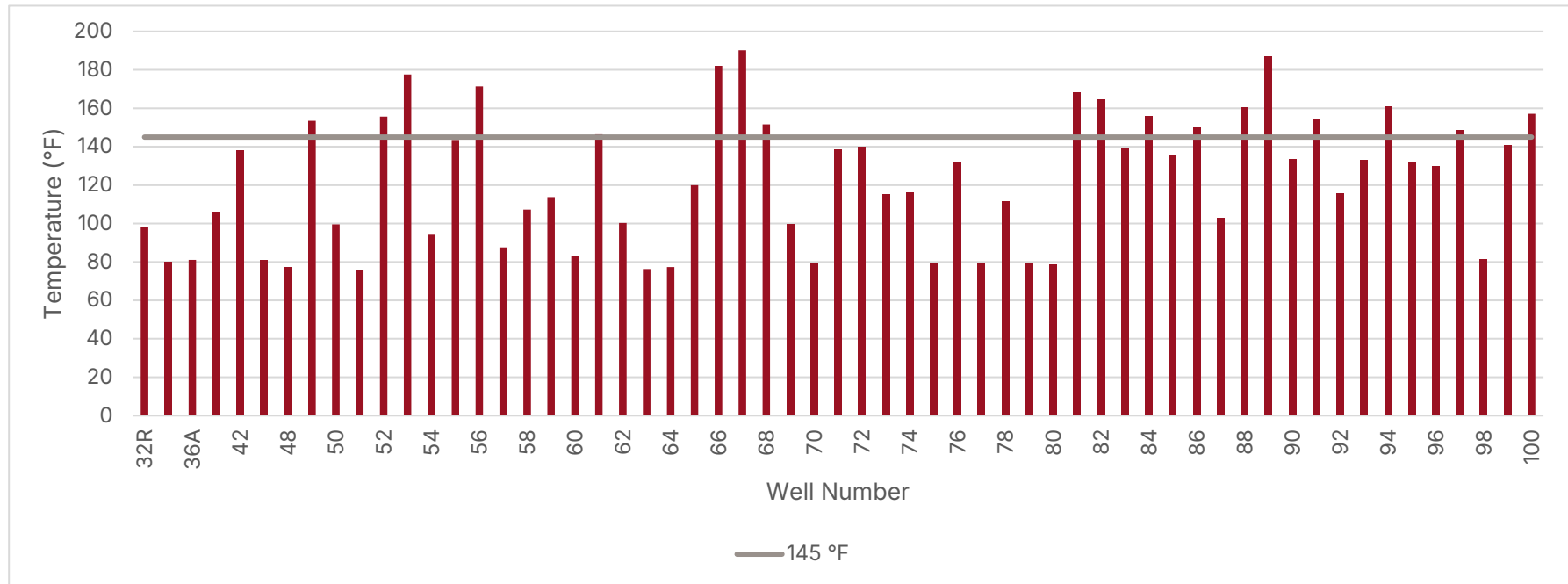
Existing Gas Extraction System Performance

SCS reviewed the automated hourly temperature measurements from August 2026, and observed the following:

- The average temperature in August was above the regulatory threshold of 145°F at 18 of the 59 wells (see **Figure 1**).
- The highest average temperature was 190.2°F at EW-67. This well experienced ongoing temperature exceedances in August and is being actively monitored. EW-67 has an active dewatering pump, removing heat via the extracted liquids and creating more open pore spaces for hot gas to be extracted. The pump in EW-67 was the third most active this month.

GAS COLLECTION

Figure 1. Monthly Average Automated Wellhead Temperatures¹



¹ 145°F is the NESHAP AAAA compliance threshold for well temperature, included here for reference.

COMPARISON WITH MANUAL TEMPERATURE MEASUREMENTS

Per the approval issued by VDEQ on August 2, 2023, the Facility ceased dedicated daily manual temperature measurements in the Permit No. 588 Landfill. In lieu of these measurements, the City compares instantaneous hourly automated temperature measurements with temperatures measured at each wellhead using a handheld sensor during monthly compliance monitoring. These comparisons are shown in Figure 2, with the $\pm 8^{\circ}\text{F}$ deviation thresholds as prescribed in the VDEQ approval.

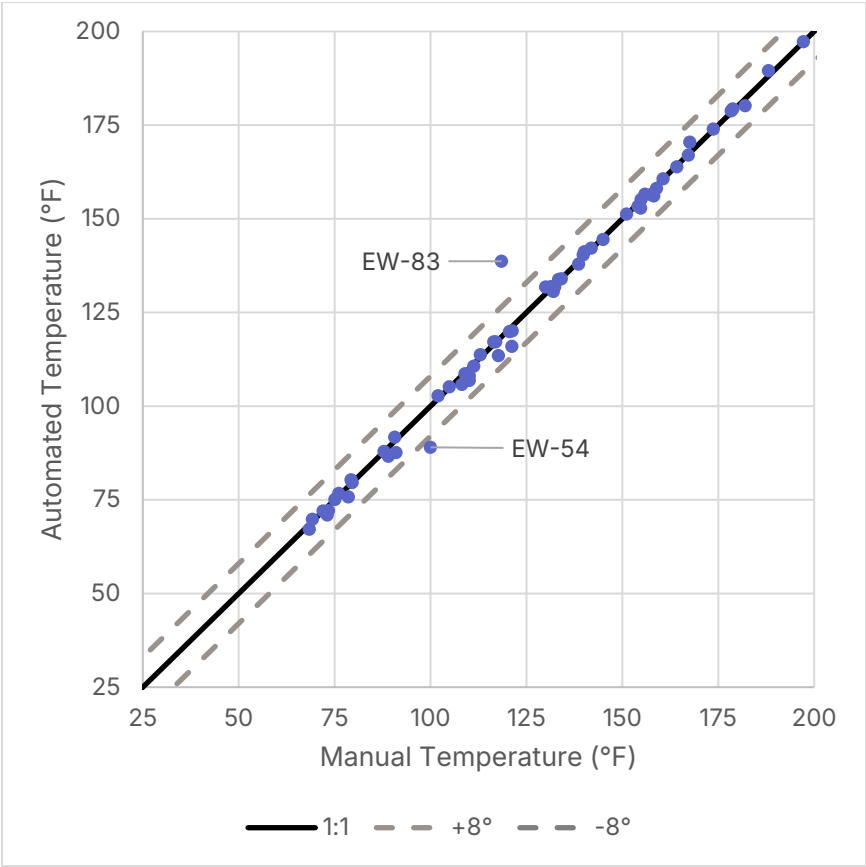
Temperatures were within the $\pm 8^{\circ}\text{F}$ deviation threshold at all wells except two, EW-54 and EW-83, during this reporting period.

At EW-54, the manual and automated readings differed by 11 to 12°F , with the manual readings being higher than the automated readings. Previously, this difference was attributed to the elevated temperatures at this well. Temperatures at this well have since decreased, but the difference in readings has persisted. At both comparison points this month, the hourly monitoring data shows that temperature was changing at the well, so it may be the frequent fluctuation of temperature rather than high or low temperature causing differences between measurement methods.

At EW-83, readings differed by approximately 20°F , with manual readings lower than the automated readings. No flow was recorded during the manual readings, which may contribute to the lower temperature reading compared to the automated sensors.

SCS will continue to review temperature data for these wells and take steps to improve the accuracy of temperature measurement devices if needed.

Figure 2. Automated vs. Manual Temperature Measurements



MONTHLY REGULATORY WELLHEAD TEMPERATURE MEASUREMENTS

Routine monthly temperature monitoring was conducted on August 3 and August 17, 2026, to comply with 40 CFR 60.36f(a)(5). Table 3 provides the status of exceedances recorded during this monitoring period.

Table 3. August Temperature Exceedance Summary

Well ID	HOV	Initial Exceedance Date	Compliant Reading	Most Recent Reading	Duration of Exceedance	Status as of 9/1/2026
EW-67	180°F	6/24/26	N/A	8/24/26 197.7 °F	70 days	Ongoing, beyond 60-day timeline
EW-68	None	7/29/26	N/A	8/24/26 148.5 °F	35 days	Ongoing, within 60-day timeline
EW-91	175°F	8/17/26	8/24/26 155.3 °F	8/31/26	8 days	Resolved within 15-day timeline

GAS COLLECTION

LFG SAMPLING

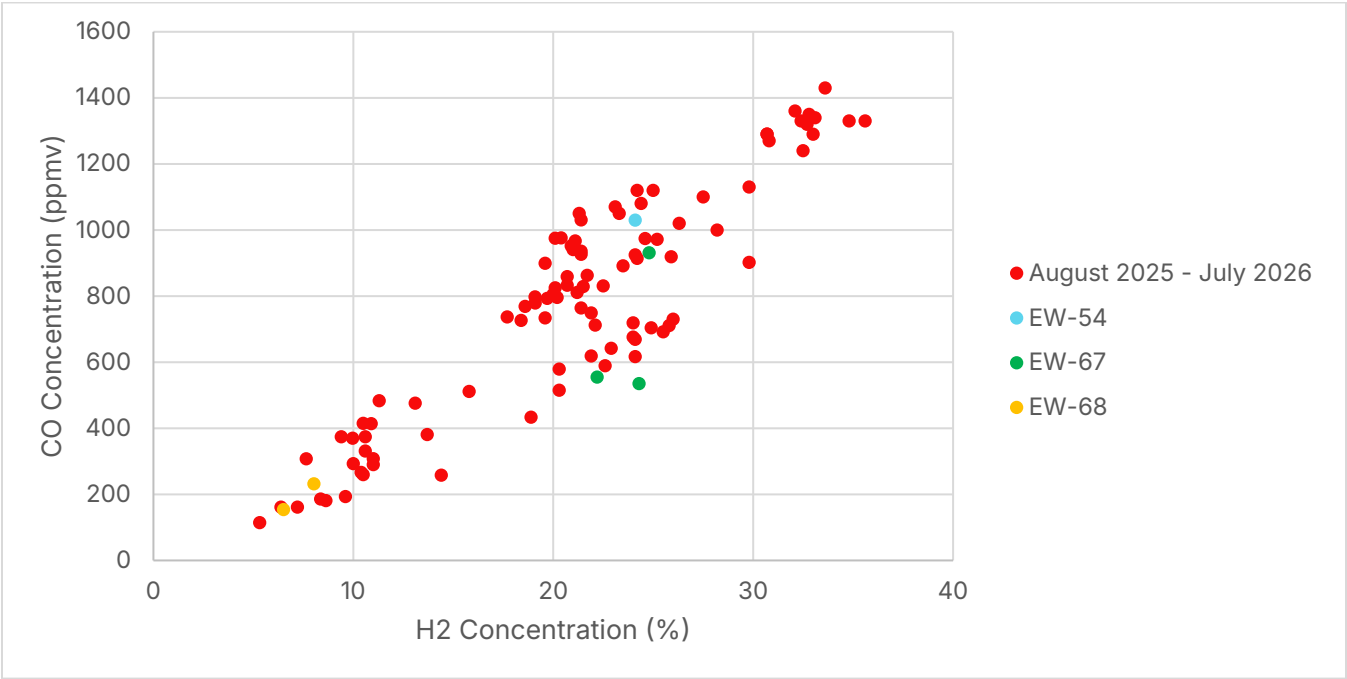
SCS collects weekly LFG samples from wells with temperature exceedances lasting more than seven days using 1.5-L summa canisters. The samples were sent to Onterris (formerly Enthalpy Analytical) for laboratory analysis of carbon monoxide (CO) and hydrogen (H₂) content. As of September 1, 2026, the City has received laboratory data for the sampling on July 22, July 30, and August 6, 2026, to fulfill the requirement in 40 CFR 63.1961(a)(5). Sampling did not occur in the weeks of August 10th and August 17th due to a supply issue with summa canisters. The laboratory data are summarized in Table 4.

Table 4. LFG Wellhead Sampling Summary

Sample Date		7/22/26	7/30/26	8/6/26
EW-54	CO (ppmv)	1030		
	H2 (Vol. %)	24.1		
EW-67	CO (ppmv)	931	555	535
	H2 (Vol. %)	24.8	22.2	24.3
EW-68	CO (ppmv)		154	232
	H2 (Vol. %)		6.51	8.03

As shown in Figure 3, the carbon monoxide and hydrogen data collected during this period are consistent with the data collected previously in 2025 and 2026.

Figure 3. CO vs H₂ Concentration from gas wells in August 2026 with historical trend



2 SIDEWALL ODOR MITIGATION

On the City’s behalf, SCS designed and constructed a system to control fugitive emissions emanating from the quarry sidewalls.

Perimeter Gas Collection System

Refer to the April 2023 Monthly Compliance Report for the SWP No. 588 Landfill, for information about the perimeter gas extraction wells.

Sidewall Odor Mitigation System

Refer to the October 2022 Monthly Compliance Report for the SWP No. 588 Landfill, for information about the design of the sidewall odor mitigation system.

Pilot System

Refer to the February 2023 Monthly Compliance Report for the SWP No. 588 Landfill, for information about the design of the construction of the pilot sidewall odor mitigation system.

Full System Operation

Operation of the sidewall odor mitigation system is monitored on a monthly basis. SCS OM&M collected monitoring data at each wellhead under vacuum in June. A summary of system averages during the month is shown in Table 5.

Table 5. Average SOMS Gas Composition

Record Dates	Average CH₄ [%]	Average CO₂ [%]	Average O₂ [%]	Average Bal Gas [%]
8/10/2026	1.8	2.6	18.9	76.8
8/12/2026	2.0	3.0	18.9	76.1

The average gas composition from the sidewall system indicates lower methane content and higher oxygen and balance gases than other components in the LFGCCS. These gas composition measurements indicate that the SOMS is collecting a mixture of LFG escaping the sidewall and air, as anticipated. Adjustments to vacuum applied to the SOM are made on a regular basis to address changes in sidewall emissions.

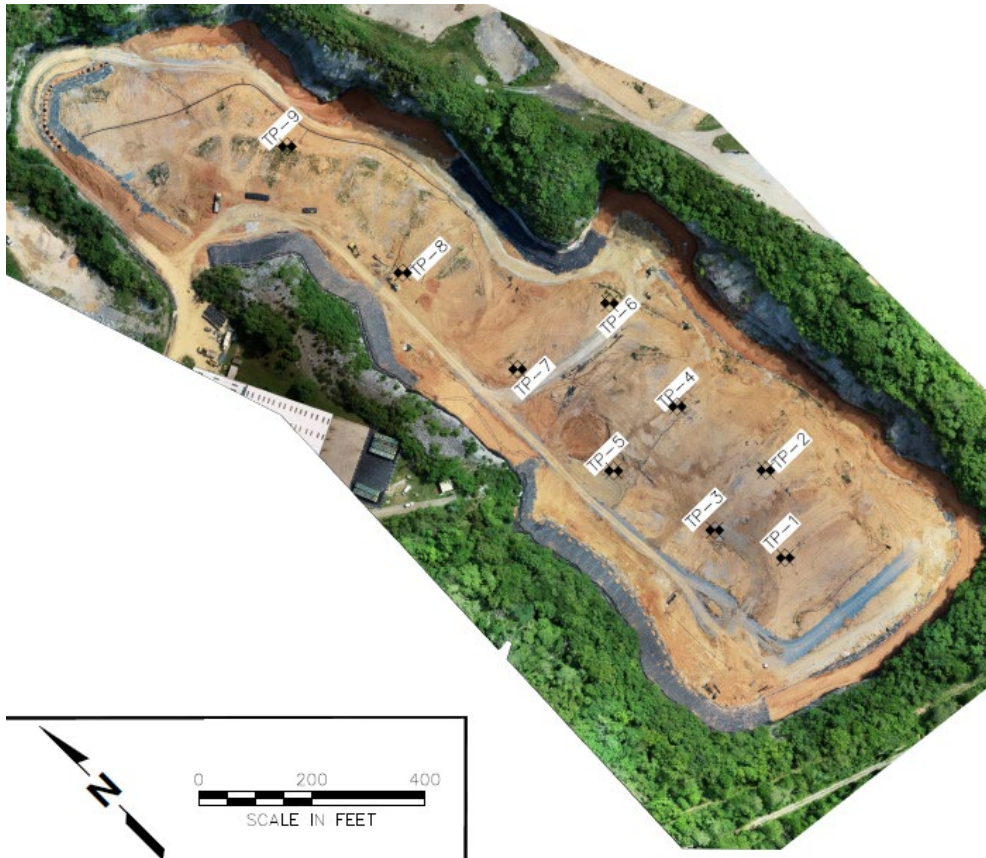
3 WASTE TEMPERATURE MONITORING

SCS designed a monitoring system to collect temperature data throughout the waste mass. The steps taken by the City to implement this system are described in the following sections.

Summary of Waste Temperature Monitoring

Installation of the in-situ Landfill Temperature Monitoring System began in October of 2022 and installation of replacement sensors was completed in February of 2023. Details of construction progress can be found in the monthly compliance reports for the SWP No. 588 Landfill. The locations of the temperature probes are shown in Figure 4.

Figure 4. Temperature Monitoring Probe Locations



SCS began collecting temperature data daily on February 15, 2023.

Average daily temperatures recorded by the sensors for the month of August are included in **Appendix D**. Each week the average temperatures from a select day of that week are downloaded and compared to temperatures recorded during the previous week. Average daily temperatures recorded on select days during the month of August are shown in **Appendix B**. The average temperatures recorded for March 2023, March 2024, March 2025, March 2026, July 2026, and August 2026 are shown in **Figures 5 through 9** on the following pages.

Overall, these data indicate that temperatures within the landfill are generally stable and are typical of those observed at elevated temperature landfills (ETLFs). The temperatures recorded are substantially lower than those associated with landfill fires or other combustion processes, which can exceed 1000°F. This is further evidence that the elevated temperatures are due to sources other than combustion.

WASTE TEMPERATURE MONITORING

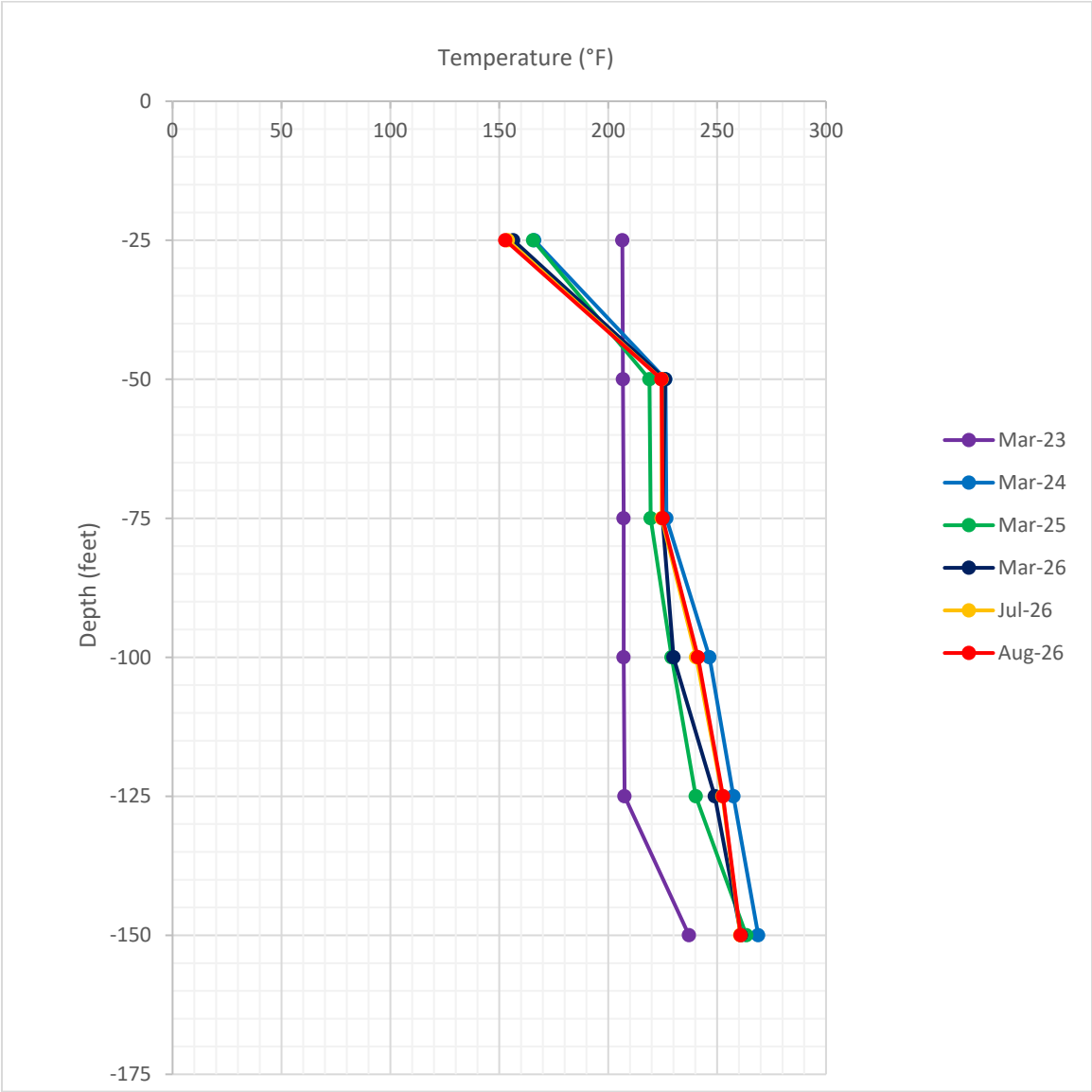
OPERATIONAL CHALLENGES

Multiple thermocouples in TP-2 and TP-3 started to fault in late 2024 and early 2025. SCS coordinated with the City in March 2026 to pull the string of thermocouples from TP-2 and TP-3 but were unable to remove the strings in either probe due to suspected pinching of the casing. TP-7 has been malfunctioning and offline since December 4, 2025. SCS OM&M relocated equipment that had been part of TP-2 to TP-7 in January, but the sensors at TP-7 still did not function. TP-2, TP-3, and TP-7 have been abandoned. TP-6 started to malfunction mid-July, 2026 and has not yet come back online. The City hosted an invitation to bid for the installation of three replacement probes per the Plan of Action Addendum dated February 2, 2026. The most recent bid closed on August 7, 2026. No bids were received, and options for alternative contracting are being explored.

TEMPERATURE PROFILES

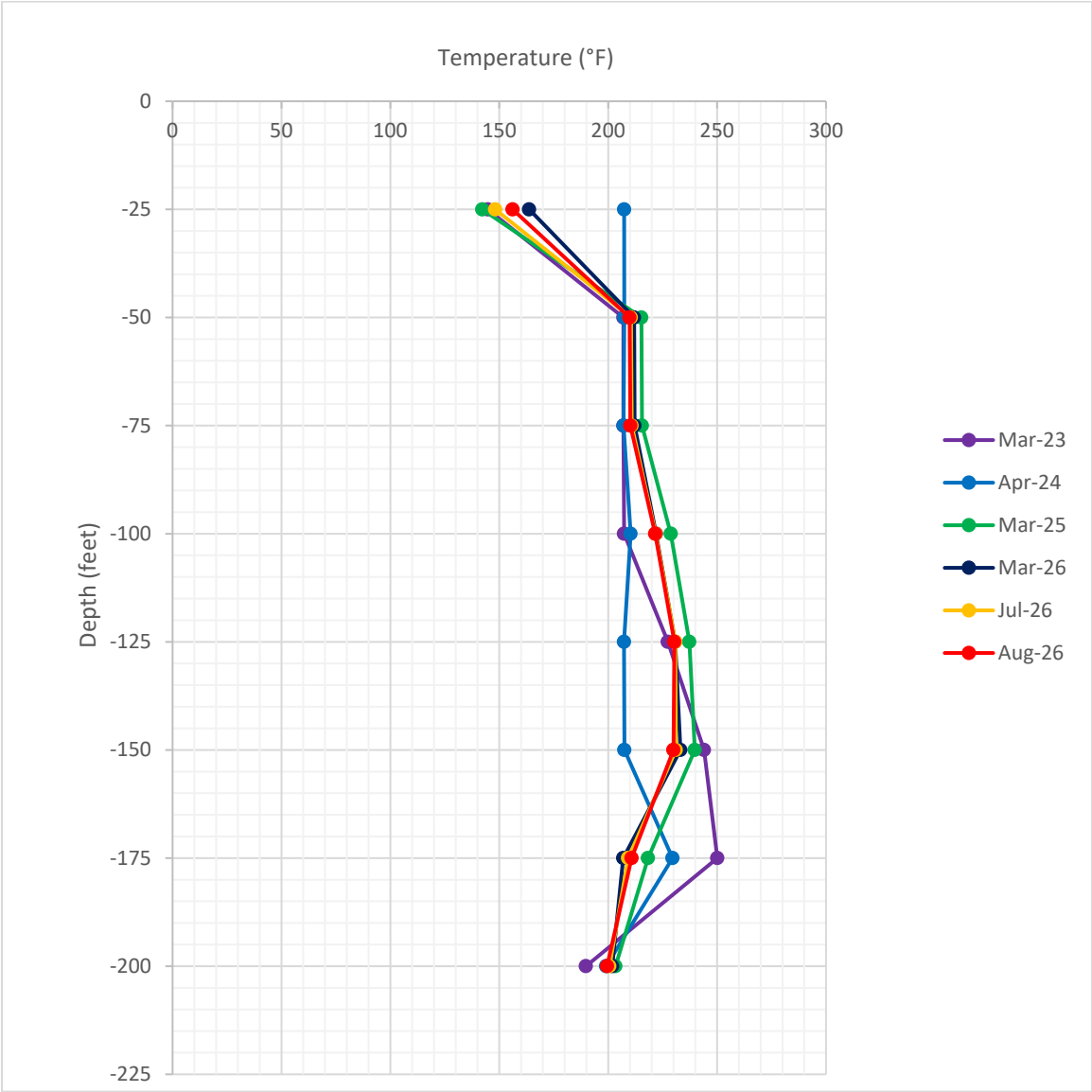
Temperature profiles for the operational thermocouple strings are shown in Figures 5 - 8. Temperature profiles have been consistent throughout 2026, with peak temperatures between 200 and 275°F in TP-1, TP-5, and TP-8 and 150°F in TP-9.

Figure 5. TP-1 Average Temperatures for the Months of March 2023, April 2024, March 2025, March 2026, June 2026, and July 2026



WASTE TEMPERATURE MONITORING

Figure 6. TP-5 Average Temperatures for the Months of March 2023, March 2024, March 2025, March 2026, June 2026, and July 2026



WASTE TEMPERATURE MONITORING

Figure 7. TP-8 Average Temperatures for the Months of March 2023, March 2024, March 2025, March 2026, June 2026, and July 2026

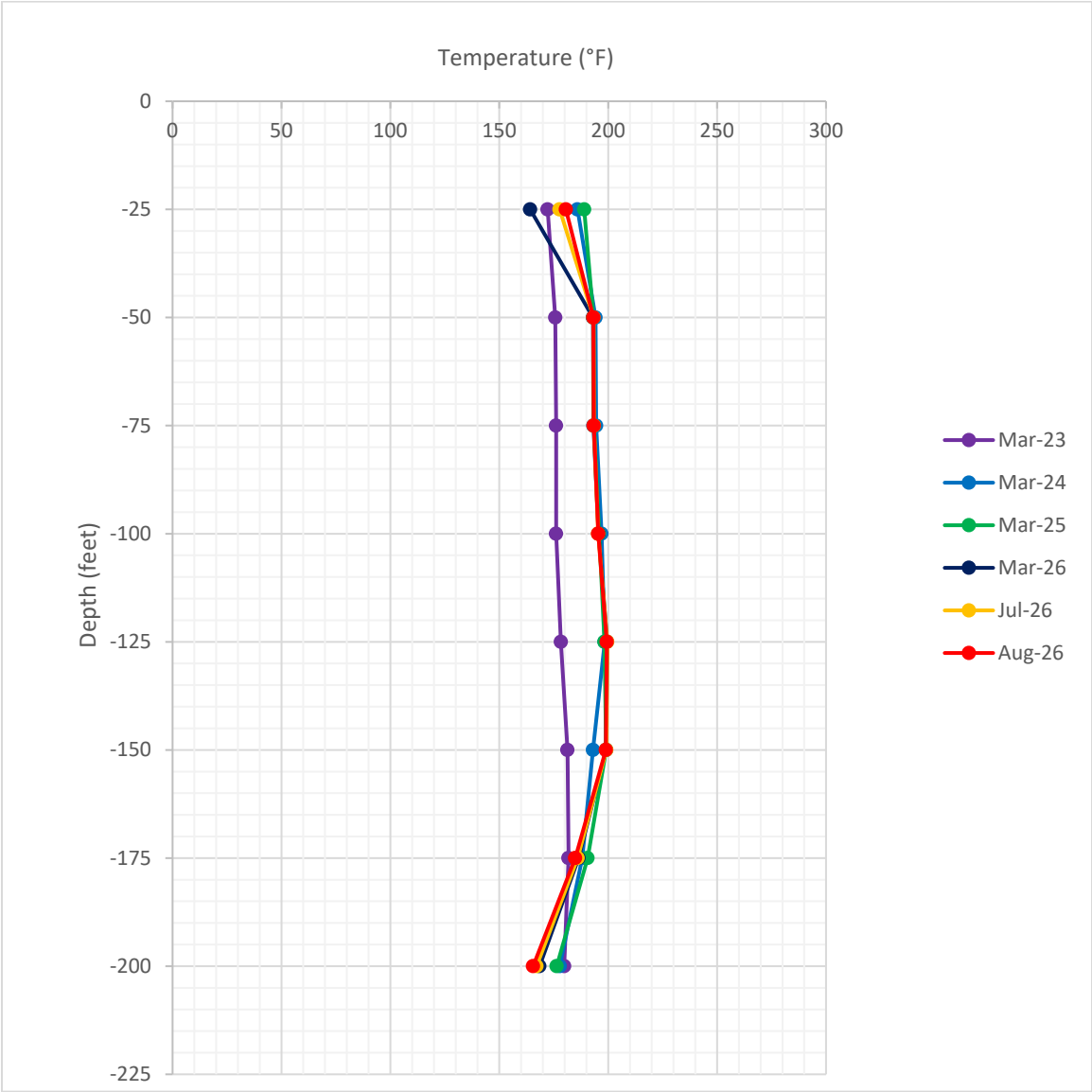
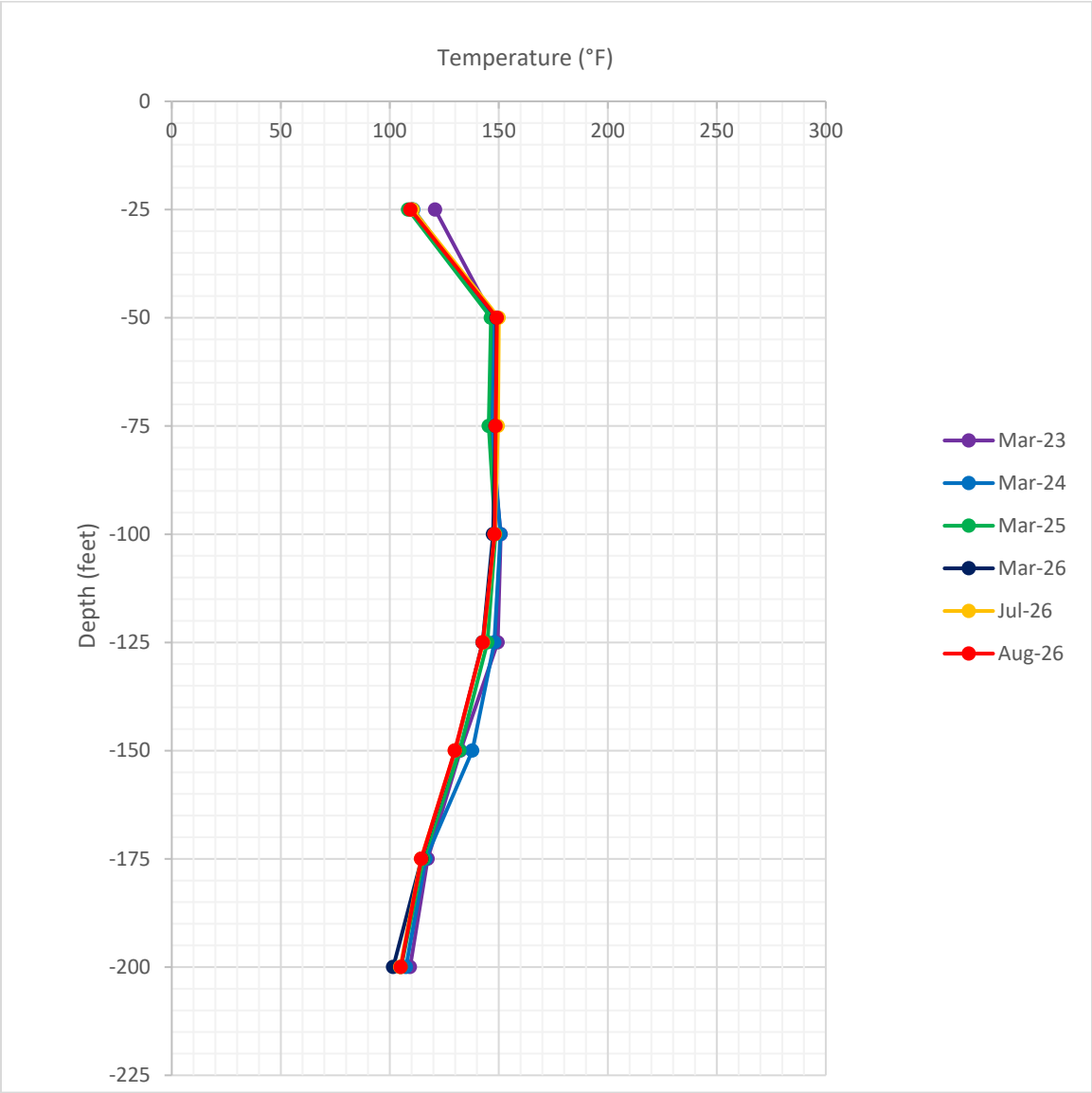


Figure 8. TP-9 Average Temperatures for the Months of March 2023, March 2024, March 2025, March 2026, June 2026, and July 2026



4 LEACHATE EXTRACTION AND MONITORING

The City is continuously taking steps to maintain and improve the extraction of leachate from the waste mass and collect analytical data on leachate characteristics. The following sections detail steps taken to achieve these goals.

Dewatering Pump Operations and Maintenance

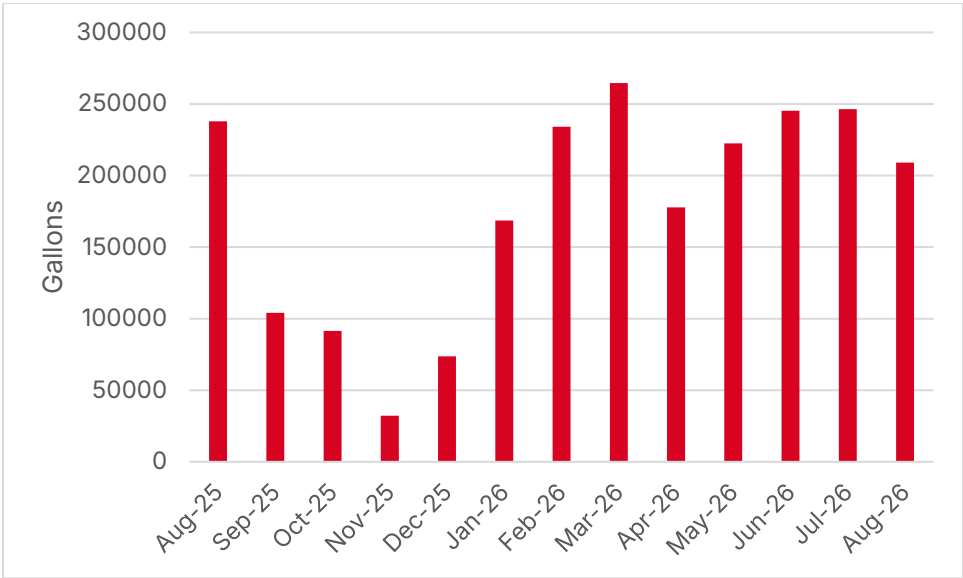
TOTAL LFG LIQUIDS REMOVAL

Figure 9 illustrates monthly landfill gas liquids removal over the past year. The volume was estimated from stroke counter data for August 2025 through August 2026. Over the past 6

LEACHATE EXTRACTION AND MONITORING

months, the estimated monthly leachate pumped has ranged from 177,700 to 264,600 gallons per month and has averaged 227,601 gallons per month.

Figure 9. Total Dewatering Liquid Removal



The Harnden Group began an LFG expansion construction project in September 2025, which necessitated pauses in the operation of dewatering pump infrastructure in December. During construction of the expansion, the City worked with the Harnden Group to replace sections of previously identified blocked forcemain piping as part of the project. Jet cleaning of the clogged leachate lines occurred in March and April, along with replacement of some of the most obstructed lines. Removal of blockages and clogging materials contributed to the increasing liquids removal.

LFG LIQUIDS PUMP OPERATIONS AND MAINTENANCE

The City and SCS understand that operations of dewatering pumps are critical to address issues related to heat, odors, and the efficient operation of the GCCS. The landfill conditions present a challenging environment for pump operations. Daily pump checks and maintenance of spare pumps will continue indefinitely, along with pump replacements as needed.

Estimated volumes of liquids removed at each pump are presented in Table G-1, Appendix G. SCS has prepared the summary below regarding operating conditions and specific challenges associated with each pump in August 2026.

Pump Maintenance Activities

- Pulled and swapped pumps in EW-49, EW-50, EW-54, EW-55, EW-59, EW-60, EW-61, EW-66 (twice), EW-67
- Tri-tubing repaired or replaced at EW-66
- Stroke counter replaced at EW-54
- Pumps removed from EW-54 and EW-68, pump in EW-54 to be reinstalled after forcemain jetting

Wells with Inactive Pumps

- The pump in EW-33B is stuck in the well casing and has been disconnected. SCS OM&M plans to replace the pump with a new QED pump.
- SCS OM&M intends to place a QED pump in EW-36A.
- The pumps in EW-51, EW-57, EW-87, EW-90, and EW-100 are permanently stuck in their wells even after attempts to remove them with heavy equipment. They cannot be cleaned or repaired.
- All pump types deployed in EW-74 and EW-75 have experienced buildup on the intake screens preventing effective pump operation. To conserve resources for pumping in other wells, pumps are no longer being deployed in these wells.
- The casings of EW-81, EW-83, and EW-91 extend too high above the existing ground level for a pump to be safely accessed. These are stainless steel wells that cannot be lowered through conventional means, both due to the fusion methods required and a shorter solid section before perforation begins. SCS OM&M and the City are continuing placement of additional soil around the wells to provide safe access.
- Removal of the pump in EW-89 was attempted by SCS OM&M in January 2026. The pump became stuck about 30 feet down well, and camera equipment showed an apparent collapse in the well at about 31.5 feet. A new pump will not be installed at this well. This pump was permanently removed in April 2026.
- The pump in EW-93 has been removed due to clogging of the tri tubing and forcemain tee. The City and SCS OM&M are exploring additional forcemain pipe cleaning options to alleviate the buildup.

In addition to the challenges associated with the individual pumps, SCS OM&M has generally observed high forcemain pressures and significant build-up of solids within the forcemain. SCS OM&M and the City are coordinating a jetting event in September 2026, with plans to reduce scaling with chemical solutions after.

Sampling and Analysis Plan

In accordance with the second amendment to the consent decree dated January 16, 2026, the frequency of landfill gas liquids sampling has been reduced to quarterly. Sampling and analysis of landfill gas liquids was conducted in July 2026 for the Third Quarter 2026 monitoring event. Refer to the July 2026 Monthly Compliance Report for the SWP No. 588 Landfill, for results of the Third Quarter 2026 monitoring event.

5 SETTLEMENT MONITORING AND MANAGEMENT

The City is taking steps to track and manage settlement occurring in the landfill. A summary of actions taken to quantify and manage settlement is included in the sections below.

Settlement Monitoring and Management Plan

Information about the Settlement Monitoring and Management Plan for the SWP No. 588 Landfill and a copy of the plan can be found in the November 2022 Compliance Report for the SWP No. 588 Landfill.

Monthly Surveys

TOPOGRAPHIC DATA COLLECTION

SCS collected topographic data of the Solid Waste Permit No. 588 Landfill using photogrammetric methods via an unmanned aerial vehicle (UAV or drone) on August 7, 2026. Aerial imagery collected on August 7, 2026, is depicted in **Figure 10**. The topographic data collected is shown on Sheet 4 in **Appendix E**.

Figure 10. Aerial Photo of the SWP No. 588 Landfill



The topography within the landfill footprint was compared to topographic data collected by SCS using photogrammetric methods on July 15, 2026. A drawing depicting the July 15, 2026, topography is included as Sheet 3 in **Appendix E**.

Based on a comparison of the topographic data collected on those two dates, the data shows a fill of 3,100 cubic yards across the site. Fill is placed and spread on the site to address differential settlement, surface emissions, and to provide access to LFG collection vertical wells. Fill was

SETTLEMENT MONITORING AND MANAGEMENT

also placed in the northern end of the landfill as part of the installation of a new landfill gas header in that part of the landfill.

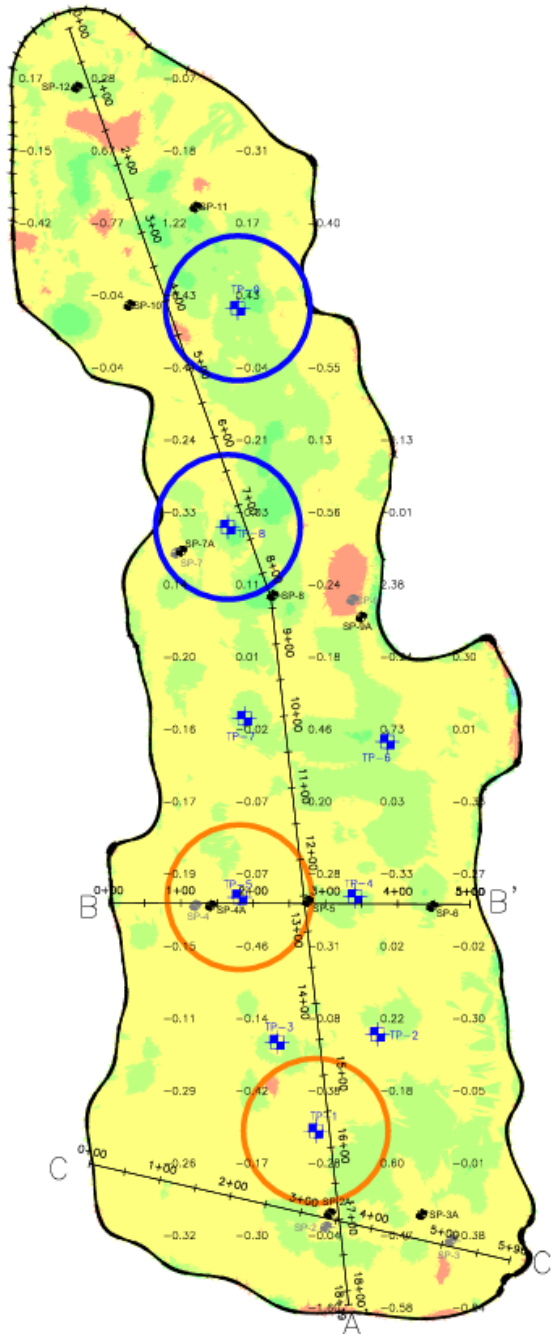
Vegetation growth, which occurs during the spring and summer months may be misinterpreted as fill by the photogrammetric survey methods. In some cases, the top of vegetation is measured using this survey method rather than the ground surface. Much of the atypical fill volume shown in comparison with the August 7, 2026 data is likely attributable to vegetation growth along the sidewall. As shown in Figure 10, these vegetated areas correspond to some of the most extreme apparent fill locations. An example of vegetation growth on the sidewalls is shown in a photo in **Figure 11**.

Figure 11. Vegetation Growth on Quarry Sidewalls



During that same time period, calculations indicate a “cut” volume of approximately 6,100 cubic yards. Cut volumes are typically attributed to settlement. This resulted in a net decrease in volume within the waste footprint of 3,000 cubic yards.

A visual depiction of settlement and filling at the landfill during this time is depicted in **Figure 12**. Areas in yellow and orange indicate where elevations decreased and areas in green indicate where elevations have increased. Darker colors indicate greater changes in elevation. This drawing is also included as Sheet 5 in **Appendix E**.

Figure 12. 1-Month Elevation Change Map

The locations of in-waste temperature monitoring probes are also shown on **Figure 12**, **Figure 13**, and **Figure 14**. The circles around the probes in each of these figures are indicative of the average borehole temperature. The circles shown are offset from the probes for clarity only and do not necessarily indicate temperatures measured at locations away from the probe. Probes with a blue circle around them typically have an average temperature less than 200°F across the full depth of the probe. Probes with an orange circle around them typically have an average temperature greater than 200°F and less than 250°F across the full depth of the probe. Probes with no circle around them had no temperature readings for this month due to sensor

SETTLEMENT MONITORING AND MANAGEMENT

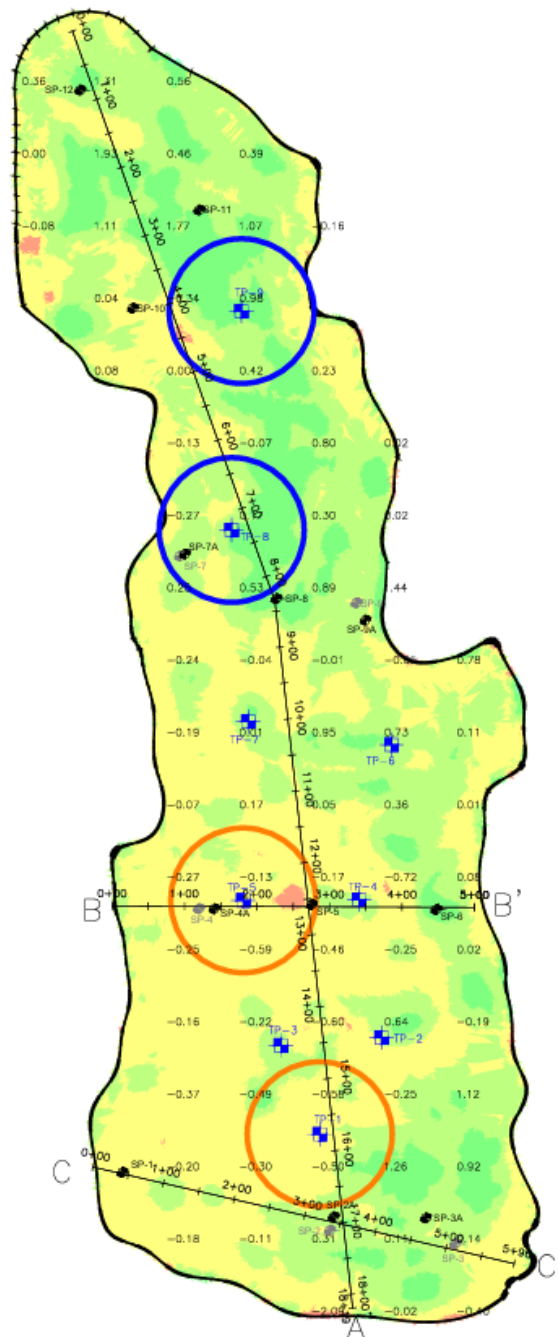
malfunctions. There were no probes measuring average temperatures greater than 250°F during the month of August 2026.

SCS calculated the waste footprint for purposes of analysis to be 752,610 square feet. Based on that area and the net volume change, the average elevation decrease between the flyover dates was 0.1 ft.

SCS also compared the topographic data collected in August to the topographic data collected on May 12, 2026. Based on a comparison of the topographic data collected on those two dates, settlement occurred that reduced the volume of waste in the landfill by approximately 3,500 cubic yards. During that same period, calculations indicate approximately 9,000 cubic yards of fill were placed on the landfill, for a net increase in waste volume of 5,500 cubic yards.

A visual depiction of settlement and filling at the landfill during this time is depicted in **Figure 13**. Areas in orange and yellow indicate where elevations decreased and areas in green indicate where elevations have increased. Darker colors indicate greater changes in elevation. This drawing is also included as Sheet 6 in **Appendix E**.

Figure 13. 3-Month Elevation Change Map



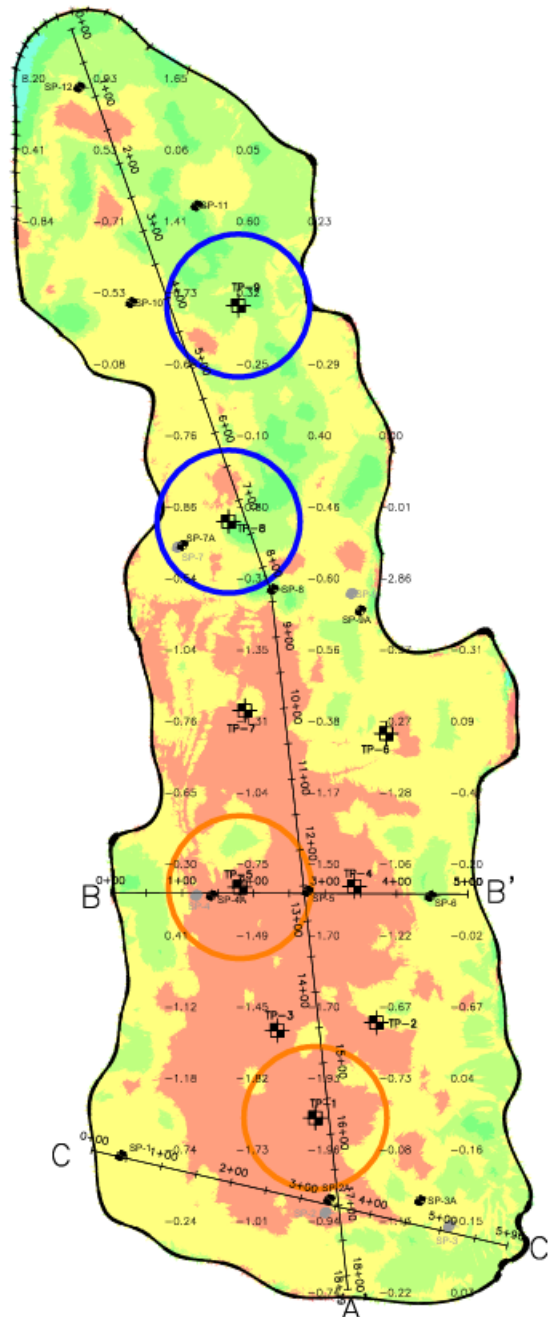
Based on the area of the landfill and the net volume change, the average elevation increase was approximately 0.2 feet.

SCS also compared the topographic data collected in August 2026 to the drone topographic data collected on August 21, 2025. Based on a comparison of the topographic data collected on those two dates, settlement occurred that reduced the volume of waste in the landfill by approximately 18,300 cubic yards. During that same time period approximately 4,500 cubic yards of construction-related fill were placed on the landfill. This resulted in a net volume decrease of approximately 13,800 cubic yards.

SETTLEMENT MONITORING AND MANAGEMENT

A visual depiction of settlement and filling at the landfill during this time is depicted in **Figure 14**. Areas in yellow and orange indicate where elevations decreased and areas in green and blue indicate where elevations have increased. Darker colors indicate greater changes in elevation. This drawing is also included as Sheet 7 in **Appendix E**.

Figure 14. 1-Year Elevation Change Map



The largest settlement in the past year occurred primarily at the southern end of the landfill where the waste settled by two feet or more in some areas. Significant settlements are typical of elevated temperature landfill conditions. The landfill perimeter exhibited an increase in elevation, likely due to soil placement associated with construction and/or ongoing maintenance of the Sidewall Odor Mitigation System. There were variations in elevation associated with soil stockpiling operations.

SETTLEMENT MONITORING AND MANAGEMENT

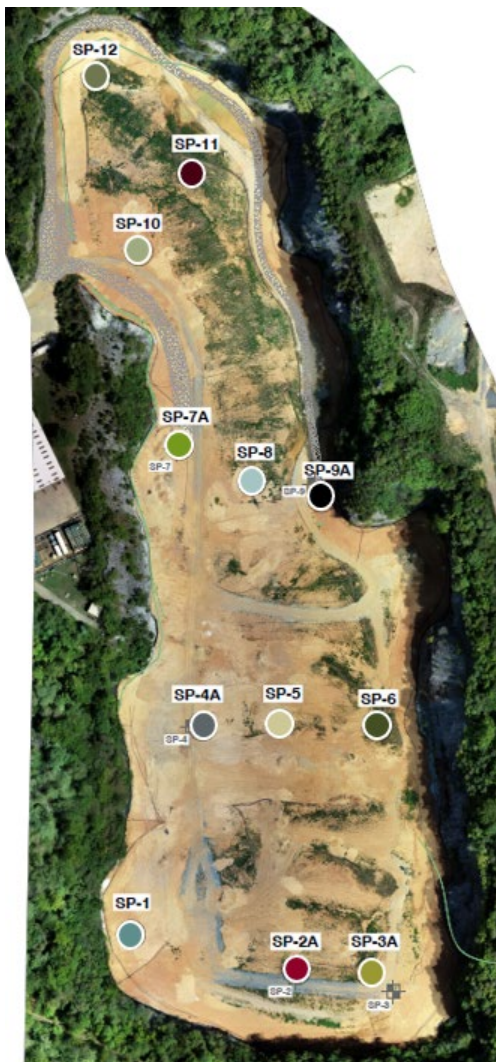
Based on the landfill area and the net volume change, the average elevation decrease in the past year was approximately 0.5 feet.

SCS will collect topographic data covering the landfill surface again in September 2026 using photogrammetric methods via UAV. This data will be compared to the data collected in September 2025, June 2026, and August 2026.

SETTLEMENT PLATE SURVEYS

On November 7, 2022, SCS field services installed 12 settlement plates on the Solid Waste Permit No. 588 landfill. Five new settlement plates (SP-2A, SP-3A, SP-4A, SP-7A, and SP-9A) installed during June 2024 are intended to replace non-operational settlement plates. The settlement plate locations are depicted in **Figure 15** and on Sheet 1 in **Appendix E**. The construction and installation of the settlement plates generally conform to the description in the Settlement Monitoring and Management Plan.

Figure 15. Settlement Plate Locations



SETTLEMENT MONITORING AND MANAGEMENT

The locations of the settlement plates were initially surveyed on November 14, 2022, and have been surveyed monthly thereafter. The survey coordinates and elevation changes of the settlement plates are shown in **Table 6**.

Table 6. Elevation and Strain Data at Settlement Plate Locations

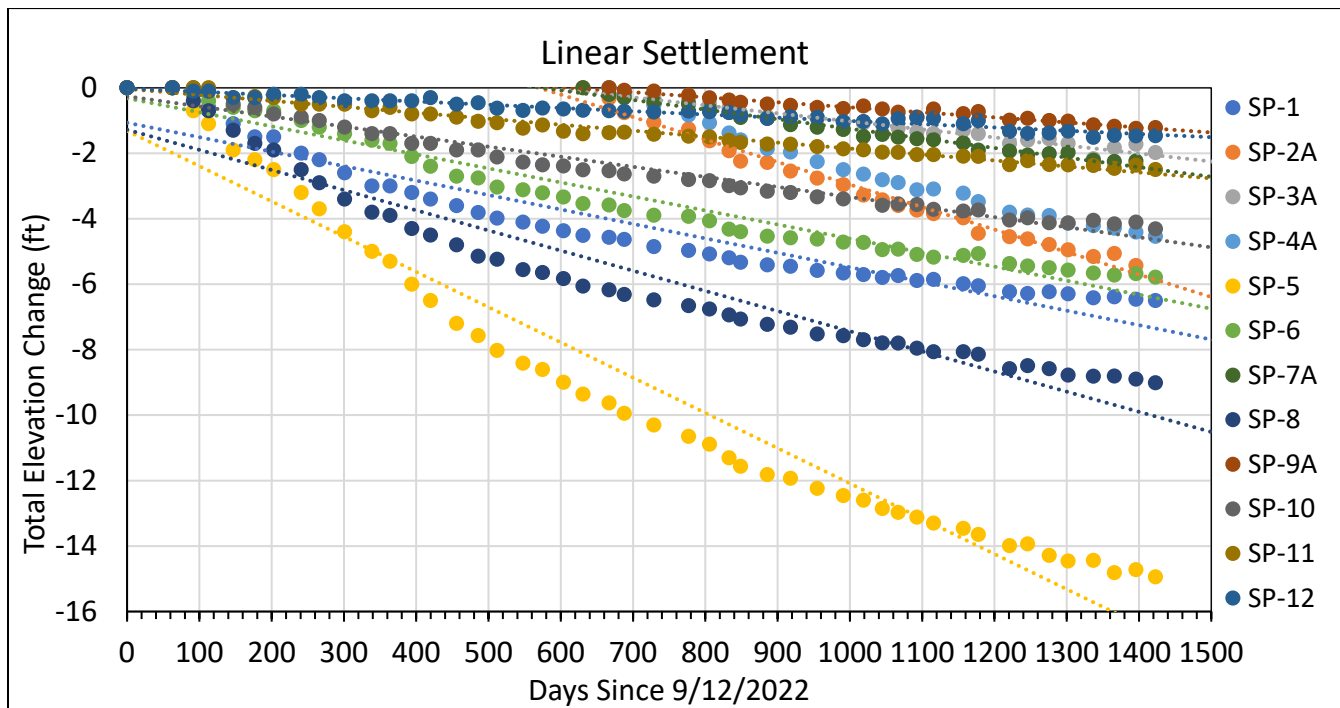
Settlement Plate	Northing	Easting	Elevation on August 5, 2026 (ft)	Elevation Change Since July 9, 2026 (ft)	Strain ² Since July 9, 2026	Elevation Change Since Installation (ft)
SP-1	3397887.7	10412081.3	1827.9	0.0	-0.1%	-6.5
SP-2A	3397823.7	10412370.8	1790.3	-0.4	-0.2%	-5.4
SP-3A	3397820.4	10412498.1	1778.2	-0.3	-0.2%	-2.0
SP-4A	3398247.0	10412208.2	1800.6	-0.1	-0.1%	-4.5
SP-5	3398255.9	10412339.9	1785.8	-0.2	-0.1%	-14.9
SP-6	3398248.8	10412509.8	1771.9	-0.1	-0.1%	-5.8
SP-7A	3398731.1	10412158.7	1821.2	0.0	0.0%	-2.2
SP-8	3398677.9	10412290.8	1798.3	-0.1	0.0%	-9.0
SP-9A	3398644.0	10412416.0	1787.6	0.0	0.0%	-1.2
SP-10	3399079.7	10412095.6	1835.2	-0.2	-0.1%	-4.3
SP-11	3399216.4	10412183.7	1813.8	-0.1	-0.1%	-2.5
SP-12	3399381.7	10412019.6	1809.2	0.0	0.0%	-1.5

As of July 2025, the settlement plate elevations are measured by Miller Land Surveying LLC.

Settlement Plates 2A and 3A demonstrated the largest amount of strain due to settlement than at other locations. These plates are located in the southern end of the landfill. The southern area of the landfill is the location of the gas wells and temperature probes exhibiting higher temperatures.

Figure 16 shows the changes in elevation of select settlement plates over time. The data in **Figure 16** are reported in days since the landfill was required to stop accepting waste.

² Strain is defined as the change in elevation divided by the estimated waste depth.

Figure 16. Elevation Change of Select Settlement Plates Over Time

The settlement plates will be surveyed again during September 2026. The elevations surveyed will be compared to the elevations surveyed the previous months.

6 INTERMEDIATE COVER AND GEOMEMBRANE COVER SYSTEM

The City has taken steps to provide intermediate and temporary cover of the wastes in the landfill. The sections below describe the steps taken by the City and future plans related to cover.

Intermediate Cover Installation

A summary of the intermediate cover installation can be found in the October 2022 Monthly Compliance Report for the SWP No. 588 Landfill.

Geomembrane Cover System Design

A second amendment to the Consent Decree was issued on January 16, 2026 which requires a geomembrane deployment once the criteria outlined in the consent decree are achieved. The amended Consent Decree also requires regular settlement assessments that will analyze settlement to evaluate if the criteria have been met. The first settlement assessment was submitted to VDEQ on April 11, 2024. The most recent assessment was submitted on July 14, 2026. The next assessment will be submitted on or before January 15, 2027.

Geomembrane Cover System Procurement

Information about the procurement of materials for the geomembrane cover system can be found in the January 2023 Monthly Compliance Report for the SWP No. 588 Landfill.

Geomembrane Cover System Installation

As outlined in the second amendment to the Consent Decree dated January 16, 2026, the deadline for geomembrane cover system installation has been extended until such time as the criteria outline in the consent decree have been met. The City is conducting the assessments described in Section 6.2 to determine the appropriate time for installation.

7 STORMWATER MANAGEMENT

Information about the most recent stormwater management plans, basin location, plan implementation, long-term control, and stormwater monitoring for the SWP No. 588 Landfill can be found in the December 2023 Monthly Compliance Report for the SWP No. 588 Landfill.

8 MISCELLANEOUS

Cease Waste Acceptance

The City ceased acceptance of offsite waste at the Solid Waste Permit No. 588 landfill prior to September 12, 2022.

Long-Term Plan

Refer to the December 2022 and March 2023 Monthly Compliance Reports for the SWP No. 588 Landfill for additional information about the development and implementation of the Monitoring, Maintenance, and Repair Plan.

Monthly Compliance Reports

As described in the introduction, this report is intended to provide comprehensive updates regarding progress towards completion of each item described in Appendix A of the Consent Decree between the City and VDEQ.

Community Outreach Program

The City's consultant leading community outreach, McGuireWoods Consulting, prepared a summary of the actions taken as part of their community outreach efforts. For the month of August 2026, those actions include:

- **Ongoing basis:** Four (4) posts on each the BristolVALandfill.org site and the existing City of Bristol Landfill Notifications and Information page covering important updates including:

MISCELLANEOUS

- Progress updates related to remediation efforts and normal maintenance activities at the Quarry Landfill.
- Updates at the Quarry Landfill this month included draining the condensation extraction piping system; making adjustments to the leachate extraction system to improve efficiency; removing and replacing numerous leachate extraction pumps; cleaning and maintaining reserve leachate extraction pumps; routine maintenance on the landfill gas system and well heads; and adding soil to areas that have been affected by settlement issues.
- **Weekly updates on landing page on Bristolvalandfill.org titled "Air Sampling and Air Monitoring" that includes a summary of the air sampling and monitoring being conducted by Bristol, VA around the quarry landfill.**
 - Website now includes weekly air monitoring reports starting from May 15, 2023, and running through June 28, 2026.
 - Christian Henneke (McGuireWoods) noted he is reviewing the latest batch of air monitoring data reports, and we should have more to post on the website soon.
- **E-mail communication sent to the list of members of the public signed up through the Bristol, VA website, the BristolVALandfill.org website, or at subsequent Open Houses to receive information via e-mail**

E-mails sent included weekly remediation progress update and links to website updates and latest news articles.

APPENDIX A

SURFACE EMISSIONS MONITORING SUMMARY

Quarterly SEM

SCS performed the Third Quarter 2026 surface emissions monitoring event on August 26, 2026. The surface emissions monitoring route included the entire waste footprint of the Permit No. 588 landfill. Sampling was conducted with Elkins Earthworks IRwin ProSEM at 30-meter intervals and where visual observations indicated the potential for elevated concentrations of LFG, such as distressed vegetation and surface cover cracks. In addition, in accordance with 40 CFR 63.1958(d)(ii)(2) and 40 CFR 60.34f(d), monitoring was conducted at all surface cover penetrations within the waste footprint.

No exceedances were detected during this quarterly monitoring event on the serpentine route or at the surface cover penetrations. This monitoring event also represented the weekly monitoring event for the week. A quarterly SEM report will be submitted to the VDEQ as part of the Semi-Annual Report. In addition, monitoring results were presented to the VDEQ in a letter dated September 2, 2026.

Weekly SEM

In addition to the standard regulatory quarterly surface emissions monitoring, the monitoring in August generally conformed to the requirements of 40 CFR 63.1960(c) and (d), and 40 CFR 60.36f(c) and (d), and 40 CFR 60, Appendix A, Method 21. The landfill gas (LFG) collection system is required to operate such that the methane concentration is less than 500 ppm above background at the landfill surface.

The SEM route included the waste footprint of the Permit No. 588 landfill. Sampling was conducted with a Elkins Earthworks IRwin ProSEM at 30-meter intervals and where visual observations indicated the potential for elevated concentrations of LFG, such as distressed vegetation and surface cover cracks. In addition, in accordance with 40 CFR 63.1958(d)(ii)(2) and 40 CFR 60.34f(d), monitoring was conducted at applicable surface cover penetrations within the waste footprint.

The Facility submitted letters to VDEQ describing the results of the August monitoring events on August 12, 2026; August 19, 2026; August 26, 2026; and, September 2, 2026. Copies of those letters are included in this Appendix.

The Facility continues to take proactive steps to limit fugitive surface emissions including dewatering activities, additional cover soil placement, and LFG system maintenance and tuning to increase gas extraction.

August 12, 2026
File No. 02218208.04

Ms. Susan "Tracey" Blalock
Air Compliance Specialist
Virginia Department of Environmental Quality
SW Regional Office
355-A Deadmore Street
Abingdon, VA 24210

Subject: Weekly Surface Emissions Monitoring Event – August 5, 2026
Bristol Integrated Solid Waste Facility – Bristol, Virginia

Dear Ms. Blalock:

On behalf of the City of Bristol (City), SCS Engineers (SCS) is pleased to submit the results of the Weekly Surface Emissions Monitoring event performed at the Bristol Integrated Solid Waste Management Facility located in Bristol, Virginia on August 5, 2026. This Weekly Surface Emissions Monitoring (SEM) Event was performed in accordance with Appendix A.1.i of the Consent Decree between the Commonwealth of Virginia and the City of Bristol.

The monitoring generally conforms to the requirements of 40 CFR 63.1960(c) and (d), and 40 CFR 60.36f(c) and (d), and 40 CFR 60, Appendix A, Method 21. The landfill gas (LFG) collection system is required to operate such that the methane concentration is less than 500 ppm above background at the landfill surface.

The monitoring route includes the entire waste footprint of Permit No. 588 Landfill. Sampling was conducted with an Inficon IRwin infrared (IR) Methane Leak Detector at 30-meter intervals and where visual observations indicated the potential for elevated concentrations of LFG, such as distressed vegetation and surface cover cracks. In addition, in accordance with 40 CFR 63.1958(d)(ii)(2) and 40 CFR 60.34f(d), monitoring was conducted at all surface cover penetrations within the waste footprint, including at the temperature probes and horizontal collectors. The approximate monitoring route and sampling locations are presented in the attached Drawing.

At the time of monitoring, all areas of the Permit No. 588 Landfill footprint are subject to regulatory monitoring based on the regulatory schedule stipulated in 40 CFR 63.1960(b) and 40 CFR 60.36f(b). Permit No. 588 Landfill has a surface area of approximately 17.3 acres. Therefore, the minimum number of sampling points to cover the appropriate portion of the landfill footprint, utilizing a 30-meter grid interval, is approximately 82 (4.75 points per acre). A summary of the results of the surface emissions monitoring is provided in Table 1.



Table 1. Summary of Surface Emissions Monitoring

Description	Quantity
Number of Points Sampled	168
Number of Points in Serpentine Route	100
Number of Points at Surface Cover Penetrations	68
Number of Exceedances	0
Number of Serpentine Exceedances	0
Number of Pipe Penetration Exceedances	0

REMONITORING OF ONGOING EXCEEDANCES

In accordance with 40 CFR 63.1960(c)(4)(ii) and 40 CFR 60.36f(c)(4)(ii), corrective actions and a remonitoring event are to be performed within 10 days of the initial exceedance. In accordance with 40 CFR 63.1960(c)(4)(iii) and 40 CFR 60.36f(c)(4)(iii) additional corrective actions and a second 10-day retest are to be performed if the initial 10-day retest indicates methane values greater than the regulatory threshold. The Facility performs corrective actions, as necessary, including wellhead vacuum adjustments, the installation of well-bore seals, and addition of soil cover prior to weekly monitoring events at locations that previously exhibited elevated methane concentrations.

In accordance with 40 CFR 63.1960(c)(4)(v) and 40 CFR 60.36f(c)(4)(v) a new well or collection device must be installed or an alternate remedy must be submitted within 120 days at locations that continue to exhibit methane concentrations above the regulatory threshold for two consecutive re-tests.

A summary of ongoing exceedance points is provided in Table 2.

Table 2. Ongoing Weekly SEM Exceedances

Point ID	Initial Exceedance Date	8/5/26 Event	8/5/26 Event Result	Comments
EW-55	6/25/26	N/A	Passed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-58	7/2/26	N/A	Passed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-53	7/8/26	N/A	Passed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-67	7/16/26	N/A	Passed	Requires 1-Month Retest

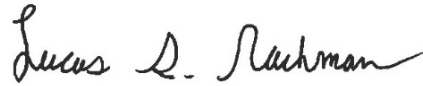
Ms. Susan "Tracey" Blalock
August 12, 2026
Page 3

If you have questions or require additional information, please contact either of the undersigned.

Sincerely,

A handwritten signature in black ink, appearing to read "William J. Fabrie". The signature is written in a cursive style with a large, stylized "F".

William J. Fabrie
Project Professional
SCS Engineers

A handwritten signature in black ink, appearing to read "Lucas S. Nachman". The signature is written in a cursive style with a large, stylized "L".

Lucas S. Nachman
Senior Project Professional
SCS Engineers

LSN/WJF

cc: Jonathan Hayes, City of Bristol
Laura Helander, City of Bristol

Encl. Surface Emissions Monitoring Results
Bristol SEM Route Drawing

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - AUGUST 5, 2026
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates		Comments
			Lat.	Long.	
1	0.0 PPM	OK			Start Serpentine Route
2	0.0 PPM	OK			
3	0.0 PPM	OK			
4	0.0 PPM	OK			
5	0.0 PPM	OK			
6	0.0 PPM	OK			
7	0.0 PPM	OK			
8	0.0 PPM	OK			
9	1.0 PPM	OK			
10	0.0 PPM	OK			
11	0.0 PPM	OK			
12	0.0 PPM	OK			
13	0.0 PPM	OK			
14	0.0 PPM	OK			
15	0.0 PPM	OK			
16	0.0 PPM	OK			
17	0.0 PPM	OK			
18	0.0 PPM	OK			
19	0.0 PPM	OK			
20	0.0 PPM	OK			
21	0.0 PPM	OK			
22	0.0 PPM	OK			
23	0.0 PPM	OK			
24	0.0 PPM	OK			
25	0.0 PPM	OK			
26	0.0 PPM	OK			
27	0.0 PPM	OK			
28	0.0 PPM	OK			
29	0.0 PPM	OK			
30	0.0 PPM	OK			
31	0.0 PPM	OK			
32	0.0 PPM	OK			
33	0.0 PPM	OK			
34	0.0 PPM	OK			
35	0.0 PPM	OK			
36	0.0 PPM	OK			
37	0.0 PPM	OK			
38	0.0 PPM	OK			
39	4.0 PPM	OK			
40	0.0 PPM	OK			
41	0.0 PPM	OK			
42	0.0 PPM	OK			
43	0.0 PPM	OK			
44	3.0 PPM	OK			
45	0.0 PPM	OK			
46	0.0 PPM	OK			
47	0.0 PPM	OK			
48	0.0 PPM	OK			

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - AUGUST 5, 2026
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates		Comments
			Lat.	Long.	
49	0.0 PPM	OK			
50	0.0 PPM	OK			
51	0.0 PPM	OK			
52	0.0 PPM	OK			
53	1.0 PPM	OK			
54	0.0 PPM	OK			
55	68.0 PPM	OK			
56	0.0 PPM	OK			
57	0.0 PPM	OK			
58	0.0 PPM	OK			
59	0.0 PPM	OK			
60	0.0 PPM	OK			
61	0.0 PPM	OK			
62	0.0 PPM	OK			
63	0.0 PPM	OK			
64	0.0 PPM	OK			
65	0.0 PPM	OK			
66	0.0 PPM	OK			
67	0.0 PPM	OK			
68	0.0 PPM	OK			
69	0.0 PPM	OK			
70	0.0 PPM	OK			
71	0.0 PPM	OK			
72	0.0 PPM	OK			
73	0.0 PPM	OK			
74	0.0 PPM	OK			
75	0.0 PPM	OK			
76	2.0 PPM	OK			
77	0.0 PPM	OK			
78	0.0 PPM	OK			
79	0.0 PPM	OK			
80	0.0 PPM	OK			
81	0.0 PPM	OK			
82	0.0 PPM	OK			
83	0.0 PPM	OK			
84	0.0 PPM	OK			
85	0.0 PPM	OK			
86	0.0 PPM	OK			
87	0.0 PPM	OK			
88	0.0 PPM	OK			
89	0.0 PPM	OK			
90	0.0 PPM	OK			
91	0.0 PPM	OK			
92	0.0 PPM	OK			
93	0.0 PPM	OK			
94	0.0 PPM	OK			
95	0.0 PPM	OK			
96	0.0 PPM	OK			

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - AUGUST 5, 2026
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates		Comments
			Lat.	Long.	
97	0.0 PPM	OK			
98	0.0 PPM	OK			
99	0.0 PPM	OK			
100	0.0 PPM	OK			End Serpentine Route
101	0.0 PPM	OK			EW-75
102	0.0 PPM	OK			EW-74
103	0.0 PPM	OK			EW-62
104	0.0 PPM	OK			TP-9
105	0.0 PPM	OK			EW-76
106	0.0 PPM	OK			EW-42
107	0.0 PPM	OK			EW-33B
108	0.0 PPM	OK			EW-63
109	0.0 PPM	OK			EW-77
110	0.0 PPM	OK			EW-64
111	0.0 PPM	OK			EW-79
112	0.0 PPM	OK			TP-8
113	0.0 PPM	OK			EW-81
114	3.0 PPM	OK			EW-80
115	0.0 PPM	OK			EW-83
116	0.0 PPM	OK			EW-84
117	0.0 PPM	OK			EW-49
118	0.0 PPM	OK			TP-7
119	0.0 PPM	OK			EW-86
120	0.0 PPM	OK			EW-90
121	0.0 PPM	OK			EW-95
122	0.0 PPM	OK			EW-97
123	0.0 PPM	OK			EW-99
124	0.0 PPM	OK			EW-56
125	0.0 PPM	OK			EW-100
126	0.0 PPM	OK			EW-59
127	0.0 PPM	OK			TP-1
128	0.0 PPM	OK			EW-57
129	0.0 PPM	OK			EW-58
130	0.0 PPM	OK			EW-98
131	0.0 PPM	OK			EW-66
132	0.0 PPM	OK			HC-01
133	0.0 PPM	OK			EW-53
134	0.0 PPM	OK			EW-96
135	0.0 PPM	OK			EW-67
136	0.0 PPM	OK			EW-47
137	0.0 PPM	OK			EW-54
138	0.0 PPM	OK			EW-55
139	0.0 PPM	OK			EW-94
140	3.0 PPM	OK			EW-93
141	0.0 PPM	OK			EW-92
142	0.0 PPM	OK			EW-91
143	1.0 PPM	OK			EW-51
144	0.0 PPM	OK			TP-5

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - AUGUST 5, 2026
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates		Comments
			Lat.	Long.	
145	0.0 PPM	OK			EW-68
146	0.0 PPM	OK			EW-52
147	0.0 PPM	OK			TP-4
148	0.0 PPM	OK			HC-02
149	2.0 PPM	OK			EW-89
150	0.0 PPM	OK			EW-60
151	1.0 PPM	OK			EW-87
152	0.0 PPM	OK			EW-38
153	0.0 PPM	OK			EW-48
154	0.0 PPM	OK			EW-88
155	0.0 PPM	OK			EW-85
156	0.0 PPM	OK			EW-61
157	0.0 PPM	OK			TP-6
158	0.0 PPM	OK			EW-50
159	0.0 PPM	OK			EW-36A
160	0.0 PPM	OK			EW-65
161	2.0 PPM	OK			EW-82
162	0.0 PPM	OK			EW-78
163	0.0 PPM	OK			EW-73
164	0.0 PPM	OK			EW-70
165	2.0 PPM	OK			EW-69
166	0.0 PPM	OK			EW-32R
167	0.0 PPM	OK			EW-71
168	0.0 PPM	OK			EW-72

Number of locations sampled:	168
Number of exceedance locations:	0

NOTES:

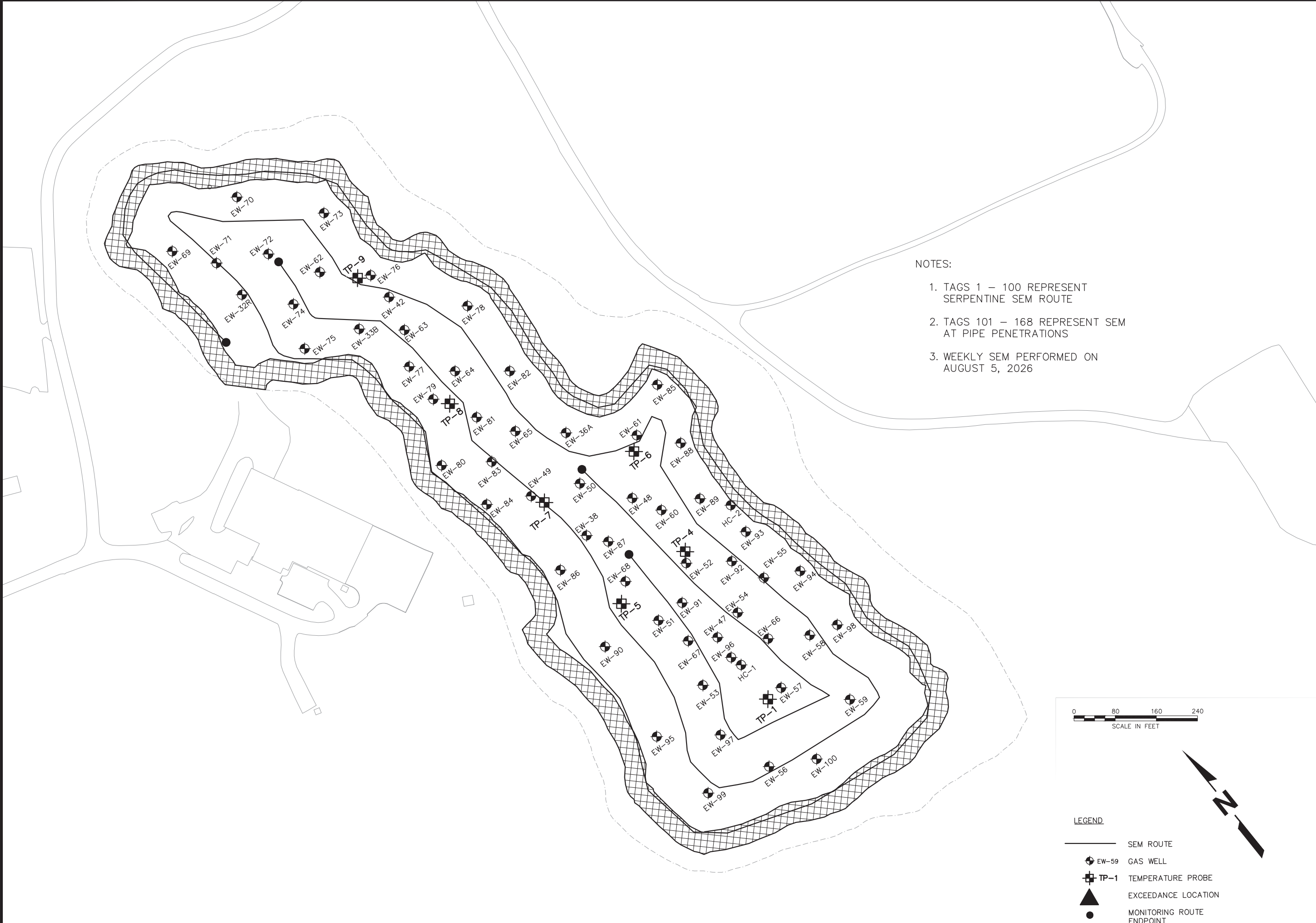
Points 1 through 100 represent serpentine SEM route.
Points 101 through 168 represent SEM at Pipe Penetrations
Weather Conditions: Sunny, 68°F Wind: 5 mph NE

Sampling Calibration: Methane - 500 ppm, Zero Air - 0.0 ppm

8/5/2026	6:22	ZERO	0.0	PPM
8/5/2026	6:22	SPAN	499.7	PPM

Background Reading:

8/5/2026	6:39	Upwind	0.0	PPM
8/5/2026	6:25	Downwind	0.0	PPM



SCS ENGINEERS STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS, INC. 2655 VALLEY DRIVE BRISTOL, VA 24113 PH: (804) 378-7440 FAX: (804) 378-7433 PROJ. NO. 02218208.04 DWN. BY: C/A RW BY: CHK. BY: APP. BY: USA BY:			CLIENT		CITY OF BRISTOL INTEGRATED SOLID WASTE MANAGEMENT FACILITY 2655 VALLEY DRIVE BRISTOL, VA 24201		SHEET TITLE		NO.	REVISION	DATE
			SEM ROUTE WITH BUFFER AREA								
			PROJECT TITLE								
			SURFACE EMISSIONS MONITORING								
			SOLID WASTE PERMIT #588								
FILE: 02218208.04 DATE: 8/5/26 SCALE: AS SHOWN DRAWING NO. 1 of 1											

August 19, 2026
File No. 02218208.04

Ms. Susan "Tracey" Blalock
Air Compliance Specialist
Virginia Department of Environmental Quality
SW Regional Office
355-A Deadmore Street
Abingdon, VA 24210

Subject: Weekly Surface Emissions Monitoring Event – August 12, 2026
Bristol Integrated Solid Waste Facility – Bristol, Virginia

Dear Ms. Blalock:

On behalf of the City of Bristol (City), SCS Engineers (SCS) is pleased to submit the results of the Weekly Surface Emissions Monitoring event performed at the Bristol Integrated Solid Waste Management Facility located in Bristol, Virginia on August 12, 2026. This Weekly Surface Emissions Monitoring (SEM) Event was performed in accordance with Appendix A.1.i of the Consent Decree between the Commonwealth of Virginia and the City of Bristol.

The monitoring generally conforms to the requirements of 40 CFR 63.1960(c) and (d), and 40 CFR 60.36f(c) and (d), and 40 CFR 60, Appendix A, Method 21. The landfill gas (LFG) collection system is required to operate such that the methane concentration is less than 500 ppm above background at the landfill surface.

The monitoring route includes the entire waste footprint of Permit No. 588 Landfill. Sampling was conducted with an Inficon IRwin infrared (IR) Methane Leak Detector at 30-meter intervals and where visual observations indicated the potential for elevated concentrations of LFG, such as distressed vegetation and surface cover cracks. In addition, in accordance with 40 CFR 63.1958(d)(ii)(2) and 40 CFR 60.34f(d), monitoring was conducted at all surface cover penetrations within the waste footprint, including at the temperature probes and horizontal collectors. The approximate monitoring route and sampling locations are presented in the attached Drawing.

At the time of monitoring, all areas of the Permit No. 588 Landfill footprint are subject to regulatory monitoring based on the regulatory schedule stipulated in 40 CFR 63.1960(b) and 40 CFR 60.36f(b). Permit No. 588 Landfill has a surface area of approximately 17.3 acres. Therefore, the minimum number of sampling points to cover the appropriate portion of the landfill footprint, utilizing a 30-meter grid interval, is approximately 82 (4.75 points per acre). A summary of the results of the surface emissions monitoring is provided in Table 1.



Table 1. Summary of Surface Emissions Monitoring

Description	Quantity
Number of Points Sampled	168
Number of Points in Serpentine Route	100
Number of Points at Surface Cover Penetrations	68
Number of Exceedances	0
Number of Serpentine Exceedances	0
Number of Pipe Penetration Exceedances	0

REMONITORING OF ONGOING EXCEEDANCES

In accordance with 40 CFR 63.1960(c)(4)(ii) and 40 CFR 60.36f(c)(4)(ii), corrective actions and a remonitoring event are to be performed within 10 days of the initial exceedance. In accordance with 40 CFR 63.1960(c)(4)(iii) and 40 CFR 60.36f(c)(4)(iii) additional corrective actions and a second 10-day retest are to be performed if the initial 10-day retest indicates methane values greater than the regulatory threshold. The Facility performs corrective actions, as necessary, including wellhead vacuum adjustments, the installation of well-bore seals, and addition of soil cover prior to weekly monitoring events at locations that previously exhibited elevated methane concentrations.

In accordance with 40 CFR 63.1960(c)(4)(v) and 40 CFR 60.36f(c)(4)(v) a new well or collection device must be installed or an alternate remedy must be submitted within 120 days at locations that continue to exhibit methane concentrations above the regulatory threshold for two consecutive re-tests.

A summary of ongoing exceedance points is provided in Table 2.

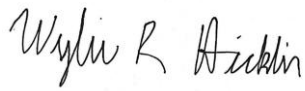
Table 2. Ongoing Weekly SEM Exceedances

Point ID	Initial Exceedance Date	8/12/26 Event	8/12/26 Event Result	Comments
EW-55	6/25/26	N/A	Passed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-58	7/2/26	N/A	Passed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-53	7/8/26	N/A	Passed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-67	7/16/26	1-Month Retest	Passed	Exceedance Resolved

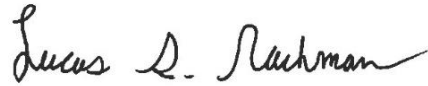
Ms. Susan "Tracey" Blalock
August 19, 2026
Page 3

If you have questions or require additional information, please contact either of the undersigned.

Sincerely,



Wylie R Hicklin
Staff Professional
SCS Engineers



Lucas S. Nachman
Senior Project Professional
SCS Engineers

LSN/WRH

cc: Jonathan Hayes, City of Bristol
Laura Helander, City of Bristol

Encl. Surface Emissions Monitoring Results
Bristol SEM Route Drawing

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - AUGUST 12, 2026
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates		Comments
			Lat.	Long.	
1	0.0 PPM	OK			Start Serpentine Route
2	0.0 PPM	OK			
3	0.0 PPM	OK			
4	0.0 PPM	OK			
5	0.0 PPM	OK			
6	0.0 PPM	OK			
7	0.0 PPM	OK			
8	0.0 PPM	OK			
9	0.0 PPM	OK			
10	0.0 PPM	OK			
11	0.0 PPM	OK			
12	0.0 PPM	OK			
13	2.0 PPM	OK			
14	0.0 PPM	OK			
15	0.0 PPM	OK			
16	0.0 PPM	OK			
17	0.0 PPM	OK			
18	0.0 PPM	OK			
19	0.0 PPM	OK			
20	0.0 PPM	OK			
21	0.0 PPM	OK			
22	0.0 PPM	OK			
23	0.0 PPM	OK			
24	0.0 PPM	OK			
25	0.0 PPM	OK			
26	0.0 PPM	OK			
27	0.0 PPM	OK			
28	0.0 PPM	OK			
29	0.0 PPM	OK			
30	0.0 PPM	OK			
31	0.0 PPM	OK			
32	0.0 PPM	OK			
33	0.0 PPM	OK			
34	0.0 PPM	OK			
35	0.0 PPM	OK			
36	0.0 PPM	OK			
37	0.0 PPM	OK			
38	0.0 PPM	OK			
39	0.0 PPM	OK			
40	0.0 PPM	OK			
41	0.0 PPM	OK			
42	0.0 PPM	OK			
43	0.0 PPM	OK			
44	0.0 PPM	OK			
45	0.0 PPM	OK			
46	0.0 PPM	OK			
47	0.0 PPM	OK			
48	0.0 PPM	OK			

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - AUGUST 12, 2026
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates		Comments
			Lat.	Long.	
49	0.0 PPM	OK			
50	0.0 PPM	OK			
51	0.0 PPM	OK			
52	0.0 PPM	OK			
53	0.0 PPM	OK			
54	0.0 PPM	OK			
55	0.0 PPM	OK			
56	17.0 PPM	OK			
57	0.0 PPM	OK			
58	1.0 PPM	OK			
59	1.0 PPM	OK			
60	0.0 PPM	OK			
61	0.0 PPM	OK			
62	0.0 PPM	OK			
63	0.0 PPM	OK			
64	0.0 PPM	OK			
65	0.0 PPM	OK			
66	0.0 PPM	OK			
67	0.0 PPM	OK			
68	0.0 PPM	OK			
69	0.0 PPM	OK			
70	0.0 PPM	OK			
71	0.0 PPM	OK			
72	0.0 PPM	OK			
73	0.0 PPM	OK			
74	4.0 PPM	OK			
75	0.0 PPM	OK			
76	0.0 PPM	OK			
77	0.0 PPM	OK			
78	0.0 PPM	OK			
79	0.0 PPM	OK			
80	1.0 PPM	OK			
81	0.0 PPM	OK			
82	0.0 PPM	OK			
83	0.0 PPM	OK			
84	0.0 PPM	OK			
85	0.0 PPM	OK			
86	0.0 PPM	OK			
87	0.0 PPM	OK			
88	0.0 PPM	OK			
89	0.0 PPM	OK			
90	0.0 PPM	OK			
91	0.0 PPM	OK			
92	0.0 PPM	OK			
93	0.0 PPM	OK			
94	0.0 PPM	OK			
95	0.0 PPM	OK			
96	0.0 PPM	OK			

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - AUGUST 12, 2026
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates		Comments
			Lat.	Long.	
97	0.0 PPM	OK			
98	0.0 PPM	OK			
99	0.0 PPM	OK			
100	0.0 PPM	OK			End Serpentine Route
101	0.0 PPM	OK			EW-75
102	2.0 PPM	OK			EW-74
103	0.0 PPM	OK			EW-62
104	0.0 PPM	OK			TP-9
105	0.0 PPM	OK			EW-76
106	0.0 PPM	OK			EW-42
107	0.0 PPM	OK			EW-33B
108	0.0 PPM	OK			EW-63
109	0.0 PPM	OK			EW-77
110	0.0 PPM	OK			EW-79
111	0.0 PPM	OK			TP-8
112	0.0 PPM	OK			EW-64
113	0.0 PPM	OK			EW-81
114	0.0 PPM	OK			EW-80
115	0.0 PPM	OK			EW-83
116	0.0 PPM	OK			EW-84
117	0.0 PPM	OK			EW-49
118	0.0 PPM	OK			TP-7
119	149.0 PPM	OK			EW-86
120	0.0 PPM	OK			EW-90
121	0.0 PPM	OK			EW-95
122	0.0 PPM	OK			EW-97
123	0.0 PPM	OK			EW-99
124	0.0 PPM	OK			EW-56
125	0.0 PPM	OK			EW-100
126	0.0 PPM	OK			EW-59
127	0.0 PPM	OK			TP-1
128	0.0 PPM	OK			EW-57
129	0.0 PPM	OK			EW-58
130	8.0 PPM	OK			EW-98
131	0.0 PPM	OK			EW-66
132	0.0 PPM	OK			HC-01
133	0.0 PPM	OK			EW-53
134	0.0 PPM	OK			EW-96
135	1.0 PPM	OK			EW-67
136	0.0 PPM	OK			EW-47
137	0.0 PPM	OK			EW-54
138	0.0 PPM	OK			EW-55
139	0.0 PPM	OK			EW-94
140	0.0 PPM	OK			EW-93
141	0.0 PPM	OK			EW-92
142	0.0 PPM	OK			EW-91
143	0.0 PPM	OK			EW-51
144	0.0 PPM	OK			TP-5

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - AUGUST 12, 2026
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates		Comments
			Lat.	Long.	
145	0.0 PPM	OK			EW-68
146	0.0 PPM	OK			EW-52
147	0.0 PPM	OK			TP-4
148	0.0 PPM	OK			HC-02
149	0.0 PPM	OK			EW-89
150	0.0 PPM	OK			EW-60
151	0.0 PPM	OK			EW-87
152	0.0 PPM	OK			EW-38
153	0.0 PPM	OK			EW-48
154	0.0 PPM	OK			EW-88
155	0.0 PPM	OK			EW-85
156	0.0 PPM	OK			EW-61
157	0.0 PPM	OK			TP-6
158	0.0 PPM	OK			EW-50
159	2.0 PPM	OK			EW-36A
160	0.0 PPM	OK			EW-65
161	0.0 PPM	OK			EW-82
162	2.0 PPM	OK			EW-78
163	0.0 PPM	OK			EW-73
164	0.0 PPM	OK			EW-70
165	0.0 PPM	OK			EW-69
166	0.0 PPM	OK			EW-32R
167	0.0 PPM	OK			EW-72
168	0.0 PPM	OK			EW-71

Number of locations sampled:	168
Number of exceedance locations:	0

NOTES:

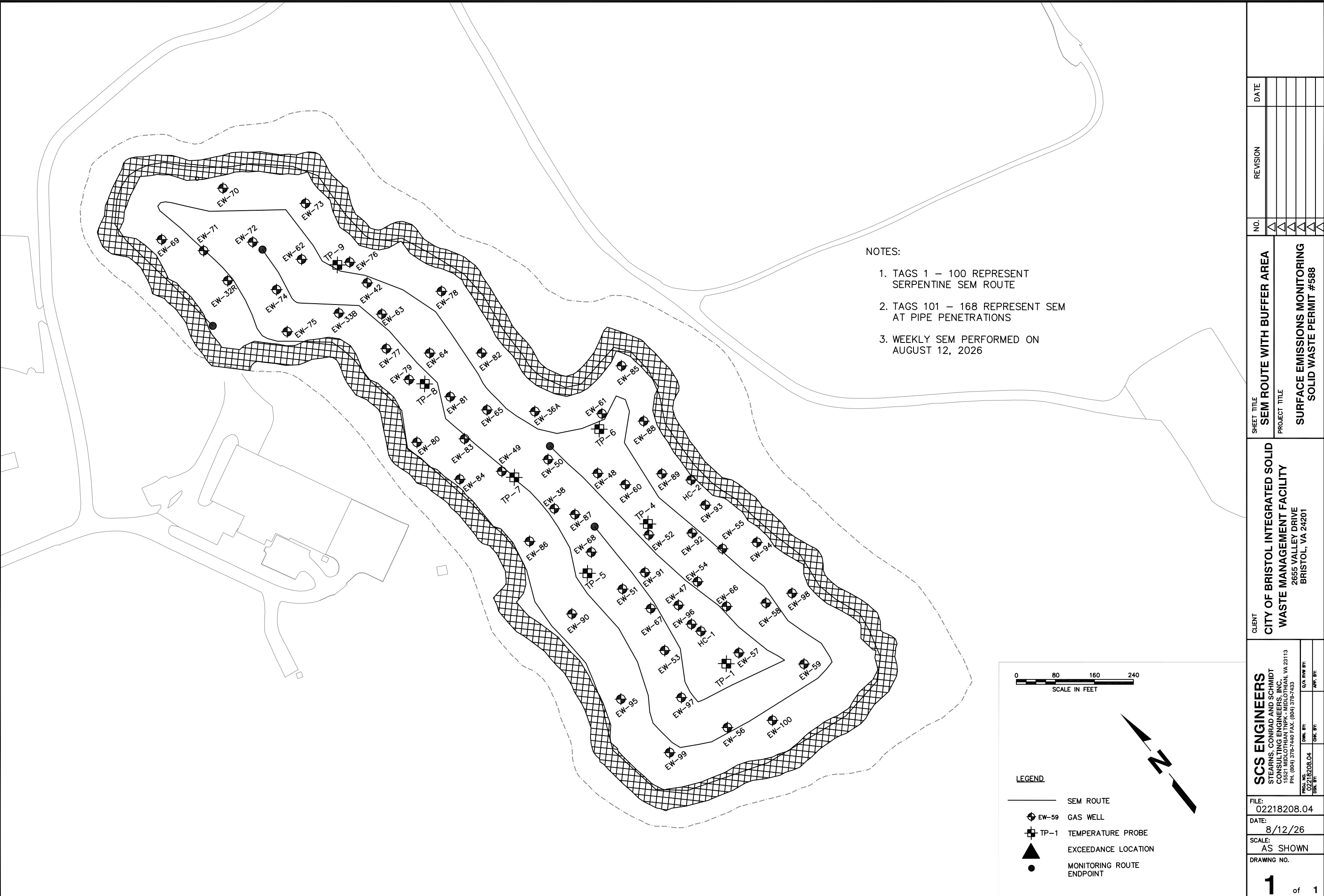
Points 1 through 100 represent serpentine SEM route.
Points 101 through 168 represent SEM at Pipe Penetrations
Weather Conditions: Cloudy, 66°F Wind: 8 mph SW

Sampling Calibration: Methane - 500 ppm, Zero Air - 0.0 ppm

8/5/2026	6:29	ZERO	0.0	PPM
8/5/2026	6:29	SPAN	497.0	PPM

Background Reading:

8/12/2026	6:40	Upwind	0.0	PPM
8/12/2026	6:42	Downwind	0.0	PPM



SHEET TITLE		NO.		REVISION		DATE	
SEM ROUTE WITH BUFFER AREA		1					
PROJECT TITLE		1					
SURFACE EMISSIONS MONITORING		1					
SOLID WASTE PERMIT #588		1					

CLIENT		CITY OF BRISTOL INTEGRATED SOLID WASTE MANAGEMENT FACILITY	
		2655 VALLEY DRIVE BRISTOL, VA 24201	

SCS ENGINEERS		STEARN, CONRAD AND SCHMIDT CONSULTING ENGINEERS, INC.	
		15521 MIDLOTHIAN TRAIL, MIDLOTHIAN, VA 23113	
		PH. (804) 378-7440 FAX. (804) 378-7433	
PROJ. NO.	02218208.04	DRAWN BY:	C/A R/W BY:
DATE:	8/12/26	CHECK BY:	APP. BY:

FILE:	02218208.04
DATE:	8/12/26
SCALE:	AS SHOWN
DRAWING NO.	1 of 1

August 26, 2026
File No. 02218208.04

Ms. Susan "Tracey" Blalock
Air Compliance Specialist
Virginia Department of Environmental Quality
SW Regional Office
355-A Deadmore Street
Abingdon, VA 24210

Subject: Weekly Surface Emissions Monitoring Event – August 19, 2026
Bristol Integrated Solid Waste Facility – Bristol, Virginia

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At the time of monitoring, all areas of the Permit No. 588 Landfill footprint are subject to regulatory monitoring based on the regulatory schedule stipulated in 40 CFR 63.1960(b) and 40 CFR 60.36f(b). Permit No. 588 Landfill has a surface area of approximately 17.3 acres. Therefore, the minimum number of sampling points to cover the appropriate portion of the landfill footprint, utilizing a 30-meter grid interval, is approximately 82 (4.75 points per acre). A summary of the results of the surface emissions monitoring is provided in Table 1.



Table 1. Summary of Surface Emissions Monitoring

Description	Quantity
Number of Points Sampled	168
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Number of Points at Surface Cover Penetrations	68
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REMONITORING OF ONGOING EXCEEDANCES

In accordance with 40 CFR 63.1960(c)(4)(ii) and 40 CFR 60.36f(c)(4)(ii), corrective actions and a remonitoring event are to be performed within 10 days of the initial exceedance. In accordance with 40 CFR 63.1960(c)(4)(iii) and 40 CFR 60.36f(c)(4)(iii) additional corrective actions and a second 10-day retest are to be performed if the initial 10-day retest indicates methane values greater than the regulatory threshold. The Facility performs corrective actions, as necessary, including wellhead vacuum adjustments, the installation of well-bore seals, and addition of soil cover prior to weekly monitoring events at locations that previously exhibited elevated methane concentrations.

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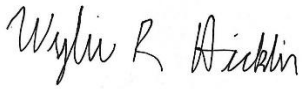
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EW-53	7/8/26	N/A	Passed	Subject to 40 CFR 63.1960(c)(4)(v)

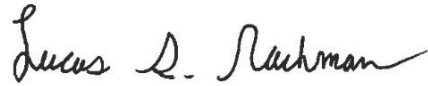
Ms. Susan "Tracey" Blalock
August 26, 2026
Page 3

If you have questions or require additional information, please contact either of the undersigned.

Sincerely,



Wylie R Hicklin
Staff Professional
SCS Engineers



Lucas S. Nachman
Senior Project Professional
SCS Engineers

LSN/WRH

cc: Jonathan Hayes, City of Bristol
Laura Helander, City of Bristol

Encl. Surface Emissions Monitoring Results
Bristol SEM Route Drawing

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS WEEKLY MONITORING EVENT - AUGUST 19, 2026 BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA					
ID #	Methane Concentration	Compliance	GPS Coordinates Lat. Long.		Comments
1	0.0 PPM	OK			Start Serpentine Route
2	0.0 PPM	OK			
3	0.0 PPM	OK			
4	0.0 PPM	OK			
5	0.0 PPM	OK			
6	0.0 PPM	OK			
7	0.0 PPM	OK			
8	0.0 PPM	OK			
9	0.0 PPM	OK			
10	0.0 PPM	OK			
11	0.0 PPM	OK			
12	1.0 PPM	OK			
13	0.0 PPM	OK			
14	0.0 PPM	OK			
15	0.0 PPM	OK			
16	2.0 PPM	OK			
17	0.0 PPM	OK			
18	0.0 PPM	OK			
19	0.0 PPM	OK			
20	0.0 PPM	OK			
21	0.0 PPM	OK			
22	0.0 PPM	OK			
23	0.0 PPM	OK			
24	0.0 PPM	OK			
25	0.0 PPM	OK			
26	0.0 PPM	OK			
27	0.0 PPM	OK			
28	0.0 PPM	OK			
29	0.0 PPM	OK			
30	2.0 PPM	OK			
31	0.0 PPM	OK			
32	0.0 PPM	OK			
33	0.0 PPM	OK			
34	0.0 PPM	OK			
35	0.0 PPM	OK			
36	0.0 PPM	OK			
37	0.0 PPM	OK			
38	0.0 PPM	OK			
39	0.0 PPM	OK			
40	2.0 PPM	OK			
41	0.0 PPM	OK			
42	0.0 PPM	OK			
43	0.0 PPM	OK			
44	0.0 PPM	OK			
45	0.0 PPM	OK			
46	0.0 PPM	OK			
47	1.0 PPM	OK			
48	0.0 PPM	OK			

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - AUGUST 19, 2026
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates		Comments
			Lat.	Long.	
49	0.0 PPM	OK			
50	0.0 PPM	OK			
51	0.0 PPM	OK			
52	0.0 PPM	OK			
53	0.0 PPM	OK			
54	0.0 PPM	OK			
55	0.0 PPM	OK			
56	0.0 PPM	OK			
57	0.0 PPM	OK			
58	0.0 PPM	OK			
59	0.0 PPM	OK			
60	0.0 PPM	OK			
61	0.0 PPM	OK			
62	0.0 PPM	OK			
63	0.0 PPM	OK			
64	0.0 PPM	OK			
65	1.0 PPM	OK			
66	0.0 PPM	OK			
67	0.0 PPM	OK			
68	0.0 PPM	OK			
69	0.0 PPM	OK			
70	0.0 PPM	OK			
71	0.0 PPM	OK			
72	0.0 PPM	OK			
73	0.0 PPM	OK			
74	0.0 PPM	OK			
75	0.0 PPM	OK			
76	0.0 PPM	OK			
77	0.0 PPM	OK			
78	0.0 PPM	OK			
79	0.0 PPM	OK			
80	0.0 PPM	OK			
81	0.0 PPM	OK			
82	0.0 PPM	OK			
83	0.0 PPM	OK			
84	0.0 PPM	OK			
85	0.0 PPM	OK			
86	0.0 PPM	OK			
87	0.0 PPM	OK			
88	0.0 PPM	OK			
89	0.0 PPM	OK			
90	0.0 PPM	OK			
91	0.0 PPM	OK			
92	0.0 PPM	OK			
93	0.0 PPM	OK			
94	0.0 PPM	OK			
95	0.0 PPM	OK			
96	0.0 PPM	OK			

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS WEEKLY MONITORING EVENT - AUGUST 19, 2026 BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA					
ID #	Methane Concentration	Compliance	GPS Coordinates Lat. Long.		Comments
97	3.0 PPM	OK			
98	0.0 PPM	OK			
99	0.0 PPM	OK			
100	2.0 PPM	OK			End Serpentine Route
101	0.0 PPM	OK			EW-75
102	0.0 PPM	OK			EW-74
103	0.0 PPM	OK			EW-62
104	0.0 PPM	OK			EW-33B
105	0.0 PPM	OK			TP-9
106	0.0 PPM	OK			EW-76
107	0.0 PPM	OK			EW-42
108	0.0 PPM	OK			EW-63
109	0.0 PPM	OK			EW-77
110	0.0 PPM	OK			EW-79
111	0.0 PPM	OK			EW-64
112	0.0 PPM	OK			TP-8
113	0.0 PPM	OK			EW-81
114	0.0 PPM	OK			EW-83
115	0.0 PPM	OK			EW-84
116	0.0 PPM	OK			EW-49
117	0.0 PPM	OK			TP-7
118	0.0 PPM	OK			EW-80
119	0.0 PPM	OK			EW-86
120	2.0 PPM	OK			EW-90
121	0.0 PPM	OK			EW-95
122	0.0 PPM	OK			EW-97
123	0.0 PPM	OK			EW-99
124	0.0 PPM	OK			EW-56
125	0.0 PPM	OK			EW-100
126	0.0 PPM	OK			EW-59
127	1.0 PPM	OK			TP-1
128	0.0 PPM	OK			EW-57
129	0.0 PPM	OK			EW-58
130	0.0 PPM	OK			EW-98
131	0.0 PPM	OK			EW-66
132	0.0 PPM	OK			HC-1
133	0.0 PPM	OK			EW-53
134	0.0 PPM	OK			EW-96
135	0.0 PPM	OK			EW-67
136	0.0 PPM	OK			EW-47
137	0.0 PPM	OK			EW-54
138	0.0 PPM	OK			EW-55
139	0.0 PPM	OK			EW-94
140	0.0 PPM	OK			EW-93
141	0.0 PPM	OK			EW-92
142	0.0 PPM	OK			EW-91
143	0.0 PPM	OK			EW-51
144	0.0 PPM	OK			TP-5

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - AUGUST 19, 2026
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates		Comments
			Lat.	Long.	
145	0.0 PPM	OK			EW-68
146	0.0 PPM	OK			EW-52
147	1.0 PPM	OK			TP-4
148	0.0 PPM	OK			HC-02
149	0.0 PPM	OK			EW-89
150	0.0 PPM	OK			EW-60
151	0.0 PPM	OK			EW-87
152	0.0 PPM	OK			EW-38
153	0.0 PPM	OK			EW-48
154	0.0 PPM	OK			EW-88
155	0.0 PPM	OK			EW-85
156	1.0 PPM	OK			EW-61
157	0.0 PPM	OK			TP-6
158	0.0 PPM	OK			EW-50
159	2.0 PPM	OK			EW-36A
160	0.0 PPM	OK			EW-65
161	0.0 PPM	OK			EW-82
162	1.0 PPM	OK			EW-78
163	0.0 PPM	OK			EW-73
164	0.0 PPM	OK			EW-70
165	0.0 PPM	OK			EW-69
166	0.0 PPM	OK			EW-32R
167	1.0 PPM	OK			EW-71
168	0.0 PPM	OK			EW-72

Number of locations sampled:	168
Number of exceedance locations:	0

NOTES:

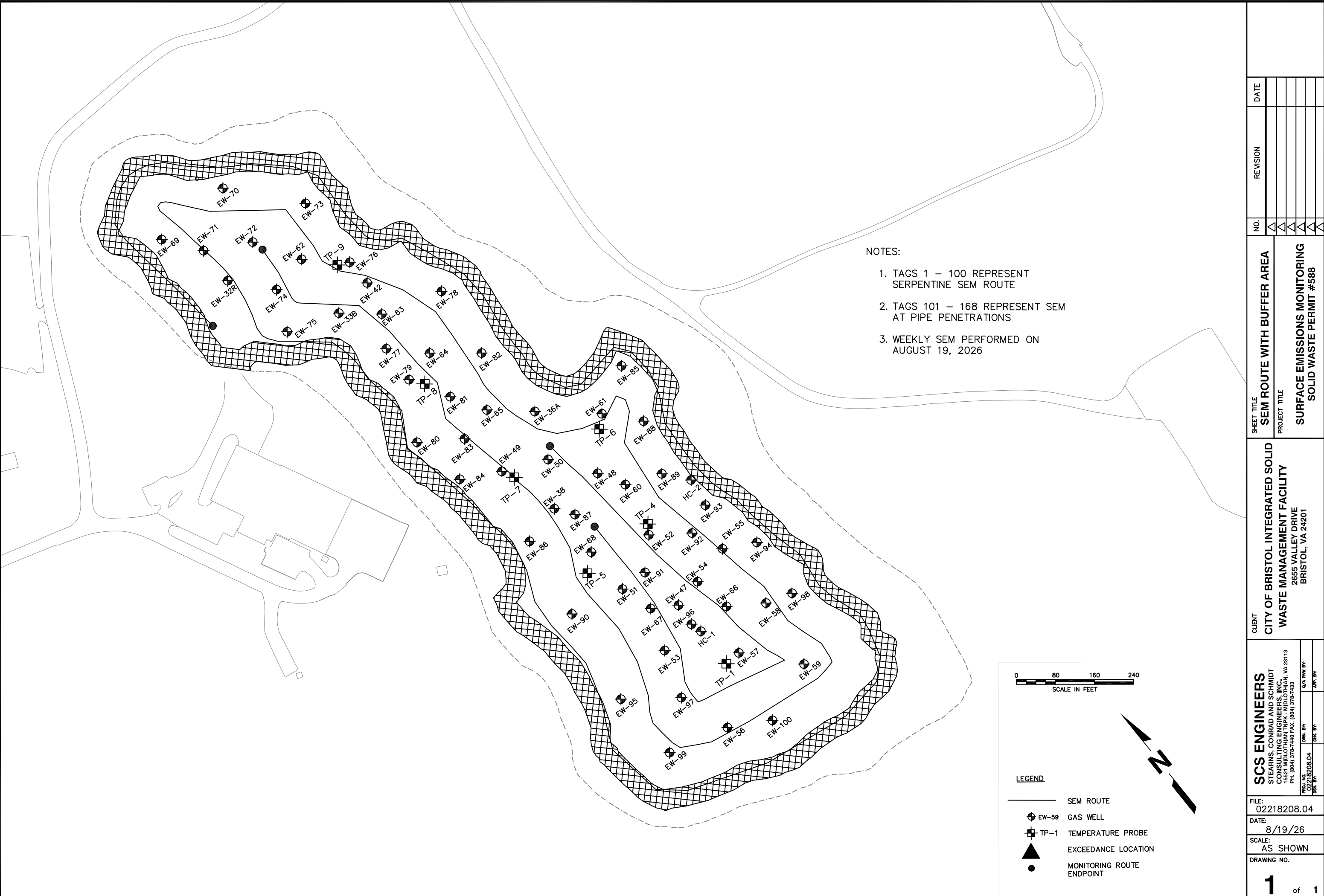
Points 1 through 100 represent serpentine SEM route.
Points 101 through 168 represent SEM at Pipe Penetrations
Weather Conditions: Partly Cloudy, 66°F Wind: 1 mph N

Sampling Calibration: Methane - 500 ppm, Zero Air - 0.0 ppm

8/19/2026	6:38	ZERO	0.0	PPM
8/19/2026	6:38	SPAN	499.0	PPM

Background Reading:

8/19/2026	6:41	Upwind	0.0	PPM
8/19/2026	6:52	Downwind	0.0	PPM



SHEET TITLE		NO.		REVISION		DATE	
SEM ROUTE WITH BUFFER AREA		1					
PROJECT TITLE		1					
SURFACE EMISSIONS MONITORING		1					
SOLID WASTE PERMIT #588		1					

CLIENT		CITY OF BRISTOL INTEGRATED SOLID WASTE MANAGEMENT FACILITY	
		2655 VALLEY DRIVE BRISTOL, VA 24201	

SCS ENGINEERS		STEARN, CONRAD AND SCHMIDT CONSULTING ENGINEERS, INC.	
		15521 MIDLOTHIAN TRAIL, MIDLOTHIAN, VA 23113	
		PH. (804) 378-7440 FAX. (804) 378-7433	
PROJ. NO.	02218208.04	DRAWN BY:	C/A R/W BY:
DATE:	8/19/26	CHECK BY:	APP. BY:

FILE:	02218208.04
DATE:	8/19/26
SCALE:	AS SHOWN
DRAWING NO.	1 of 1

September 2, 2026
File No. 02218208.04

Ms. Susan "Tracey" Blalock
Air Compliance Specialist
Virginia Department of Environmental Quality
SW Regional Office
355-A Deadmore Street
Abingdon, VA 24210

Subject: Weekly Surface Emissions Monitoring Event – August 26, 2026
Bristol Integrated Solid Waste Facility – Bristol, Virginia

Dear Ms. Blalock:

On behalf of the City of Bristol (City), SCS Engineers (SCS) is pleased to submit the results of the Weekly Surface Emissions Monitoring event performed at the Bristol Integrated Solid Waste Management Facility located in Bristol, Virginia on August 26, 2026. This Weekly Surface Emissions Monitoring (SEM) Event was performed in accordance with Appendix A.1.i of the Consent Decree between the Commonwealth of Virginia and the City of Bristol.

The monitoring generally conforms to the requirements of 40 CFR 63.1960(c) and (d), and 40 CFR 60.36f(c) and (d), and 40 CFR 60, Appendix A, Method 21. The landfill gas (LFG) collection system is required to operate such that the methane concentration is less than 500 ppm above background at the landfill surface.

The monitoring route includes the entire waste footprint of Permit No. 588 Landfill. Sampling was conducted with an Inficon IRwin infrared (IR) Methane Leak Detector at 30-meter intervals and where visual observations indicated the potential for elevated concentrations of LFG, such as distressed vegetation and surface cover cracks. In addition, in accordance with 40 CFR 63.1958(d)(ii)(2) and 40 CFR 60.34f(d), monitoring was conducted at all surface cover penetrations within the waste footprint, including at the temperature probes and horizontal collectors. The approximate monitoring route and sampling locations are presented in the attached Drawing.

At the time of monitoring, all areas of the Permit No. 588 Landfill footprint are subject to regulatory monitoring based on the regulatory schedule stipulated in 40 CFR 63.1960(b) and 40 CFR 60.36f(b). Permit No. 588 Landfill has a surface area of approximately 17.3 acres. Therefore, the minimum number of sampling points to cover the appropriate portion of the landfill footprint, utilizing a 30-meter grid interval, is approximately 82 (4.75 points per acre). A summary of the results of the surface emissions monitoring is provided in Table 1.



Table 1. Summary of Surface Emissions Monitoring

Description	Quantity
Number of Points Sampled	168
Number of Points in Serpentine Route	100
Number of Points at Surface Cover Penetrations	68
Number of Exceedances	0
Number of Serpentine Exceedances	0
Number of Pipe Penetration Exceedances	0

REMONITORING OF ONGOING EXCEEDANCES

In accordance with 40 CFR 63.1960(c)(4)(ii) and 40 CFR 60.36f(c)(4)(ii), corrective actions and a remonitoring event are to be performed within 10 days of the initial exceedance. In accordance with 40 CFR 63.1960(c)(4)(iii) and 40 CFR 60.36f(c)(4)(iii) additional corrective actions and a second 10-day retest are to be performed if the initial 10-day retest indicates methane values greater than the regulatory threshold. The Facility performs corrective actions, as necessary, including wellhead vacuum adjustments, the installation of well-bore seals, and addition of soil cover prior to weekly monitoring events at locations that previously exhibited elevated methane concentrations.

In accordance with 40 CFR 63.1960(c)(4)(v) and 40 CFR 60.36f(c)(4)(v) a new well or collection device must be installed or an alternate remedy must be submitted within 120 days at locations that continue to exhibit methane concentrations above the regulatory threshold for two consecutive retests.

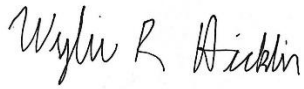
A summary of ongoing exceedance points is provided in Table 2.

Table 2. Ongoing Weekly SEM Exceedances

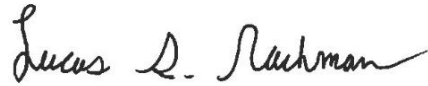
Point ID	Initial Exceedance Date	8/26/26 Event	8/26/26 Event Result	Comments
EW-55	6/25/26	N/A	Passed	Alternate Remedy Requested – Corrective Actions have Resolved Exceedance
EW-58	7/2/26	N/A	Passed	Alternate Remedy Requested – Corrective Actions have Resolved Exceedance
EW-53	7/8/26	N/A	Passed	Alternate Remedy Requested – Corrective Actions have Resolved Exceedance

If you have questions or require additional information, please contact either of the undersigned.

Sincerely,



Wylie R Hicklin
Staff Professional
SCS Engineers



Lucas S. Nachman
Senior Project Professional
SCS Engineers

LSN/WRH

cc: Jonathan Hayes, City of Bristol
Laura Helander, City of Bristol

Encl. Surface Emissions Monitoring Results
Bristol SEM Route Drawing

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS WEEKLY MONITORING EVENT - AUGUST 26, 2026 BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA					
ID #	Methane Concentration	Compliance	GPS Coordinates Lat. Long.		Comments
1	0.0 PPM	OK			Start Serpentine Route
2	3.0 PPM	OK			
3	0.0 PPM	OK			
4	0.0 PPM	OK			
5	0.0 PPM	OK			
6	0.0 PPM	OK			
7	0.0 PPM	OK			
8	0.0 PPM	OK			
9	2.0 PPM	OK			
10	0.0 PPM	OK			
11	3.0 PPM	OK			
12	0.0 PPM	OK			
13	0.0 PPM	OK			
14	0.0 PPM	OK			
15	1.0 PPM	OK			
16	0.0 PPM	OK			
17	0.0 PPM	OK			
18	0.0 PPM	OK			
19	0.0 PPM	OK			
20	0.0 PPM	OK			
21	1.0 PPM	OK			
22	0.0 PPM	OK			
23	0.0 PPM	OK			
24	2.0 PPM	OK			
25	0.0 PPM	OK			
26	0.0 PPM	OK			
27	1.0 PPM	OK			
28	0.0 PPM	OK			
29	0.0 PPM	OK			
30	0.0 PPM	OK			
31	21.0 PPM	OK			
32	1.0 PPM	OK			
33	10.0 PPM	OK			
34	6.0 PPM	OK			
35	0.0 PPM	OK			
36	0.0 PPM	OK			
37	0.0 PPM	OK			
38	0.0 PPM	OK			
39	0.0 PPM	OK			
40	0.0 PPM	OK			
41	0.0 PPM	OK			
42	0.0 PPM	OK			
43	0.0 PPM	OK			
44	0.0 PPM	OK			
45	0.0 PPM	OK			
46	0.0 PPM	OK			
47	2.0 PPM	OK			
48	0.0 PPM	OK			

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - AUGUST 26, 2026
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates		Comments
			Lat.	Long.	
49	0.0 PPM	OK			
50	0.0 PPM	OK			
51	0.0 PPM	OK			
52	0.0 PPM	OK			
53	0.0 PPM	OK			
54	0.0 PPM	OK			
55	0.0 PPM	OK			
56	0.0 PPM	OK			
57	0.0 PPM	OK			
58	2.0 PPM	OK			
59	0.0 PPM	OK			
60	0.0 PPM	OK			
61	0.0 PPM	OK			
62	0.0 PPM	OK			
63	0.0 PPM	OK			
64	0.0 PPM	OK			
65	0.0 PPM	OK			
66	0.0 PPM	OK			
67	0.0 PPM	OK			
68	2.0 PPM	OK			
69	0.0 PPM	OK			
70	0.0 PPM	OK			
71	0.0 PPM	OK			
72	0.0 PPM	OK			
73	0.0 PPM	OK			
74	0.0 PPM	OK			
75	0.0 PPM	OK			
76	0.0 PPM	OK			
77	0.0 PPM	OK			
78	0.0 PPM	OK			
79	0.0 PPM	OK			
80	0.0 PPM	OK			
81	0.0 PPM	OK			
82	1.0 PPM	OK			
83	0.0 PPM	OK			
84	0.0 PPM	OK			
85	0.0 PPM	OK			
86	0.0 PPM	OK			
87	0.0 PPM	OK			
88	0.0 PPM	OK			
89	0.0 PPM	OK			
90	2.0 PPM	OK			
91	0.0 PPM	OK			
92	0.0 PPM	OK			
93	2.0 PPM	OK			
94	0.0 PPM	OK			
95	0.0 PPM	OK			
96	0.0 PPM	OK			

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - AUGUST 26, 2026
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates		Comments
			Lat.	Long.	
97	0.0 PPM	OK			
98	2.0 PPM	OK			
99	0.0 PPM	OK			
100	0.0 PPM	OK			End Serpentine Route
101	0.0 PPM	OK			EW-75
102	0.0 PPM	OK			EW-74
103	0.0 PPM	OK			EW-62
104	0.0 PPM	OK			TP-9
105	0.0 PPM	OK			EW-76
106	0.0 PPM	OK			EW-42
107	0.0 PPM	OK			EW-33B
108	0.0 PPM	OK			EW-63
109	0.0 PPM	OK			EW-77
110	0.0 PPM	OK			EW-79
111	0.0 PPM	OK			EW-64
112	0.0 PPM	OK			TP-8
113	0.0 PPM	OK			EW-81
114	0.0 PPM	OK			EW-80
115	0.0 PPM	OK			EW-83
116	0.0 PPM	OK			EW-84
117	0.0 PPM	OK			EW-49
118	0.0 PPM	OK			TP-7
119	0.0 PPM	OK			EW-86
120	0.0 PPM	OK			EW-90
121	0.0 PPM	OK			EW-95
122	0.0 PPM	OK			EW-97
123	0.0 PPM	OK			EW-99
124	0.0 PPM	OK			EW-56
125	0.0 PPM	OK			EW-100
126	6.0 PPM	OK			EW-59
127	0.0 PPM	OK			TP-1
128	0.0 PPM	OK			EW-57
129	0.0 PPM	OK			EW-58
130	0.0 PPM	OK			EW-98
131	1.0 PPM	OK			EW-66
132	0.0 PPM	OK			HC-01
133	0.0 PPM	OK			EW-53
134	0.0 PPM	OK			EW-96
135	0.0 PPM	OK			EW-67
136	0.0 PPM	OK			EW-47
137	0.0 PPM	OK			EW-54
138	0.0 PPM	OK			EW-55
139	0.0 PPM	OK			EW-94
140	0.0 PPM	OK			EW-93
141	0.0 PPM	OK			EW-92
142	0.0 PPM	OK			EW-91
143	0.0 PPM	OK			EW-51
144	0.0 PPM	OK			TP-5

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - AUGUST 26, 2026
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates		Comments
			Lat.	Long.	
145	0.0 PPM	OK			EW-68
146	0.0 PPM	OK			EW-52
147	0.0 PPM	OK			TP-4
148	0.0 PPM	OK			HC-02
149	0.0 PPM	OK			EW-89
150	0.0 PPM	OK			EW-60
151	0.0 PPM	OK			EW-87
152	0.0 PPM	OK			EW-38
153	0.0 PPM	OK			EW-48
154	0.0 PPM	OK			EW-88
155	0.0 PPM	OK			EW-85
156	0.0 PPM	OK			EW-61
157	0.0 PPM	OK			TP-6
158	0.0 PPM	OK			EW-50
159	0.0 PPM	OK			EW-36A
160	0.0 PPM	OK			EW-65
161	0.0 PPM	OK			EW-82
162	0.0 PPM	OK			EW-78
163	0.0 PPM	OK			EW-73
164	0.0 PPM	OK			EW-70
165	0.0 PPM	OK			EW-69
166	0.0 PPM	OK			EW-71
167	0.0 PPM	OK			EW-72
168	0.0 PPM	OK			EW-32R

Number of locations sampled: 168

Number of exceedance locations: 0

NOTES:

Points 1 through 100 represent serpentine SEM route.

Points 101 through 168 represent SEM at Pipe Penetrations

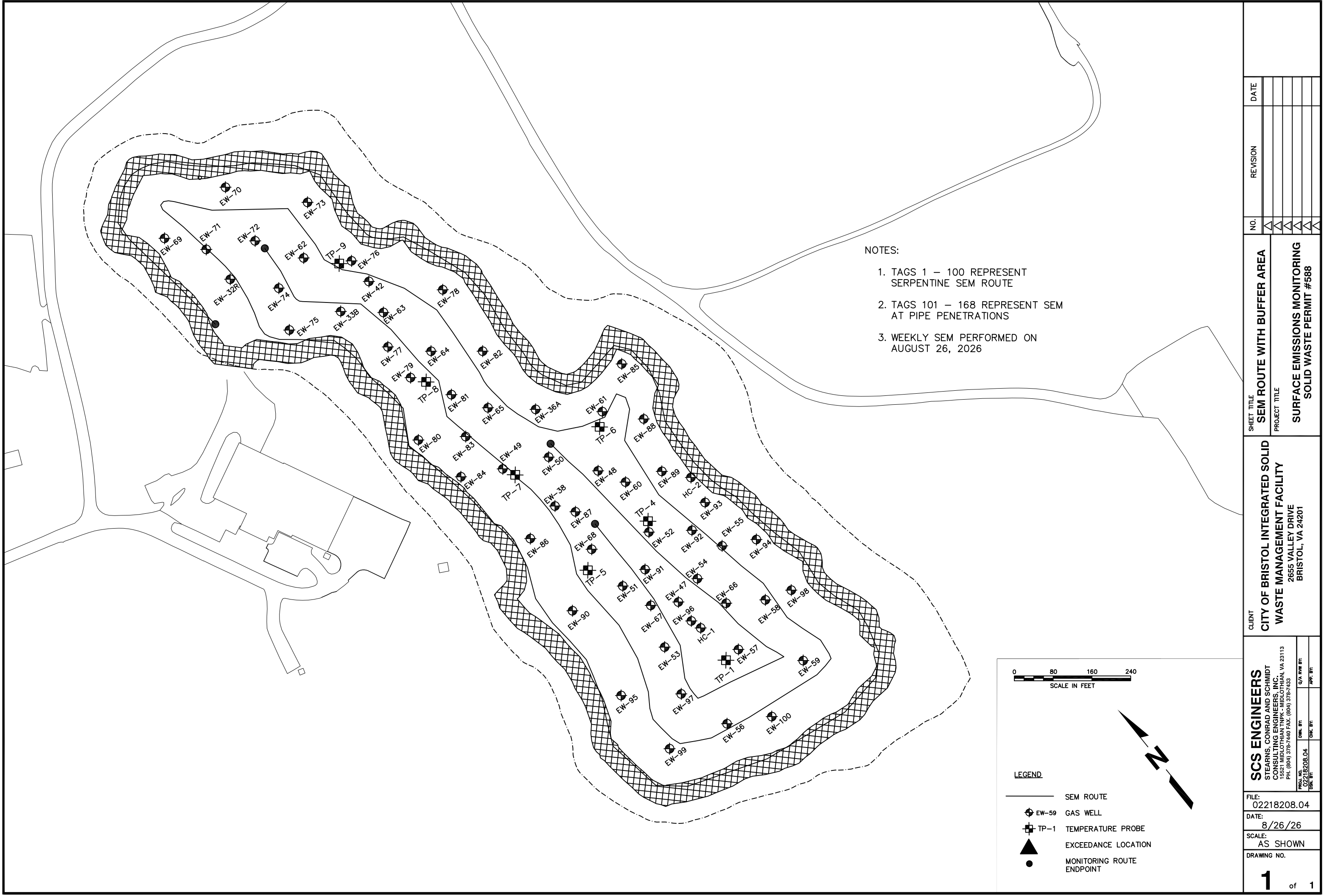
Weather Conditions: Sunny, 62°F Wind: 6 mph E

Sampling Calibration: Methane - 500 ppm, Zero Air - 0.0 ppm

8/26/2026	6:34	ZERO	0.0	PPM
8/26/2026	6:34	SPAN	497.0	PPM

Background Reading:

8/26/2026	7:04	Upwind	0.0	PPM
8/26/2026	6:38	Downwind	0.0	PPM



SHEET TITLE		NO.		REVISION		DATE	
SEM ROUTE WITH BUFFER AREA		1					
PROJECT TITLE		1					
SURFACE EMISSIONS MONITORING		1					
SOLID WASTE PERMIT #588		1					

CLIENT		CITY OF BRISTOL INTEGRATED SOLID WASTE MANAGEMENT FACILITY	
		2655 VALLEY DRIVE BRISTOL, VA 24201	

SCS ENGINEERS		STEARN, CONRAD AND SCHMIDT CONSULTING ENGINEERS, INC.	
		15521 MIDLOTHIAN TRAIL, MIDLOTHIAN, VA 23113	
		PH. (804) 378-7440 FAX. (804) 378-7433	
PROJ. NO.	02218208.04	DRAWN BY:	C/A R/W BY:
DATE:	8/26/26	CHECK BY:	APP. BY:

FILE:	02218208.04
DATE:	8/26/26
SCALE:	AS SHOWN
DRAWING NO.	1 of 1

APPENDIX B | IN-WASTE TEMPERATURES ON SELECT DAYS

Appendix B Figures

Figure B - 1 Average Temperatures Recorded by TP-1 on August 5, 2026	2
Figure B - 2 Average Temperatures Recorded by TP-1 on August 12, 2026	2
Figure B - 3 Average Temperatures Recorded by TP-1 on August 19, 2026	3
Figure B - 4 Average Temperatures Recorded by TP-1 on August 26, 2026	3
Figure B - 5 Average Temperatures Recorded by TP-5 on August 5, 2026	4
Figure B - 6 Average Temperatures Recorded by TP-5 on August 12, 2026	4
Figure B - 7 Average Temperatures Recorded by TP-5 on August 19, 2026	5
Figure B - 8 Average Temperatures Recorded by TP-5 on August 26, 2026	5
Figure B - 13 Average Temperatures Recorded by TP-8 on August 5, 2026	6
Figure B - 14 Average Temperatures Recorded by TP-8 on August 12, 2026	6
Figure B - 15 Average Temperatures Recorded by TP-8 on August 19, 2026	7
Figure B - 16 Average Temperatures Recorded by TP-8 on August 26, 2026	7
Figure B - 17 Average Temperatures Recorded by TP-9 on August 5, 2026	8
Figure B - 18 Average Temperatures Recorded by TP-9 on August 12, 2026	8
Figure B - 19 Average Temperatures Recorded by TP-9 on August 19, 2026	9
Figure B - 20 Average Temperatures Recorded by TP-9 on August 26, 2026	9

Figure B - 1 Average Temperatures Recorded by TP-1 on August 5, 2026

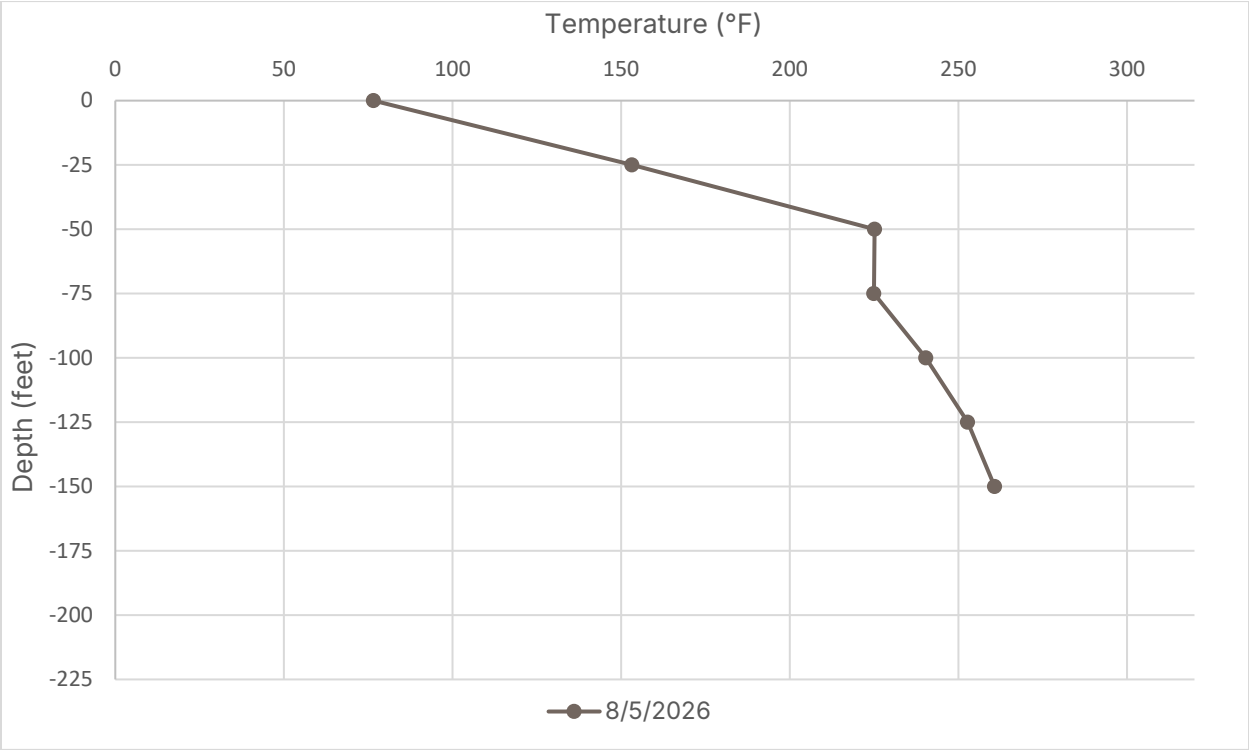


Figure B - 2 Average Temperatures Recorded by TP-1 on August 12, 2026

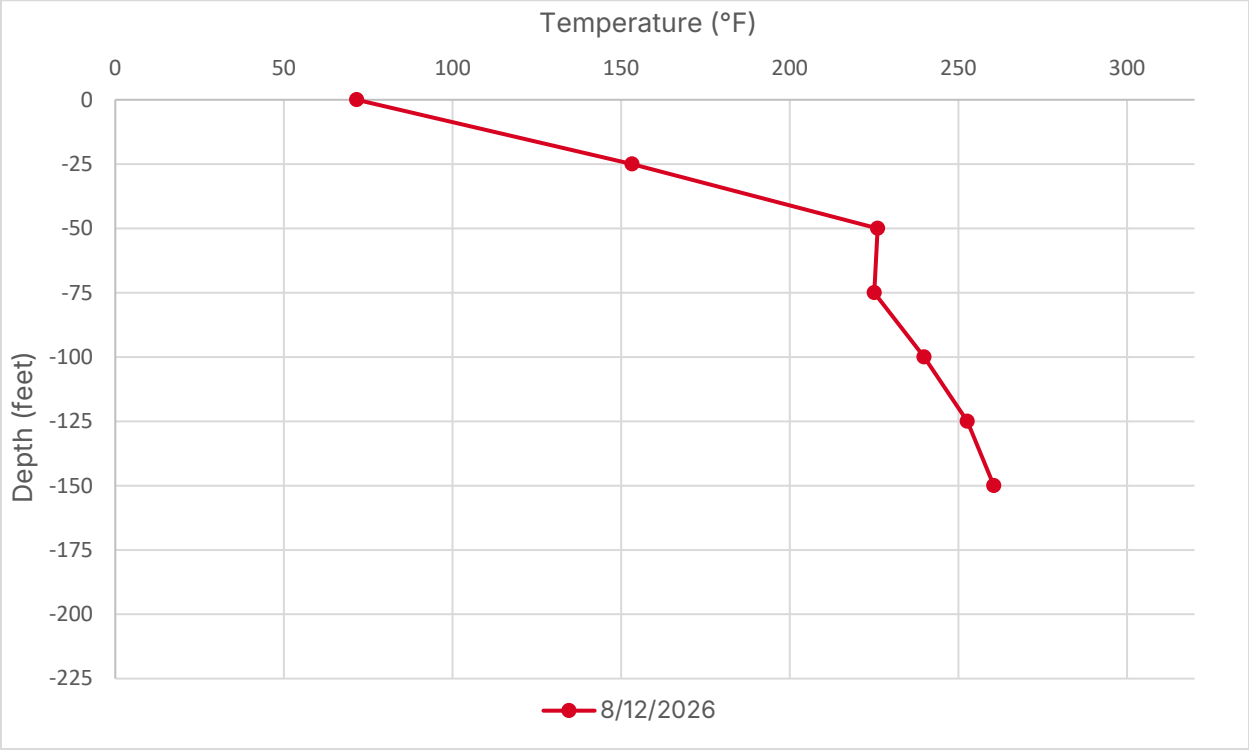


Figure B - 3 Average Temperatures Recorded by TP-1 on August 19, 2026

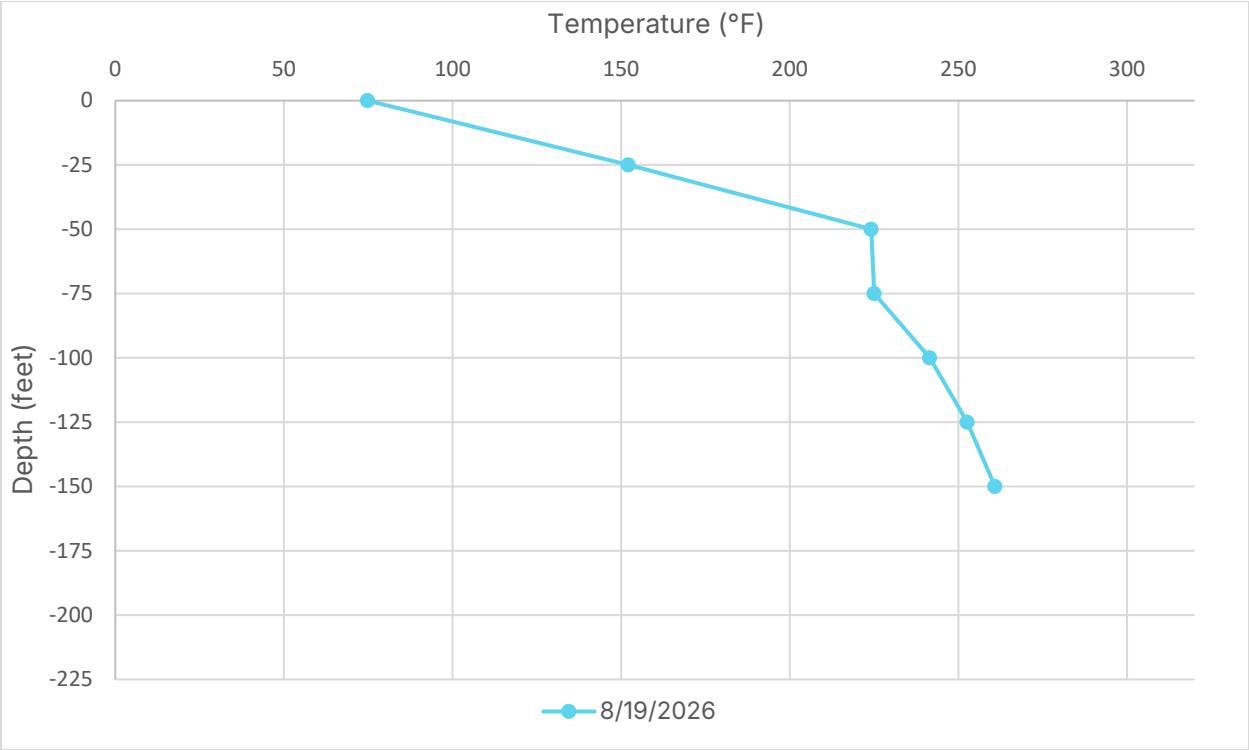


Figure B - 4 Average Temperatures Recorded by TP-1 on August 26, 2026

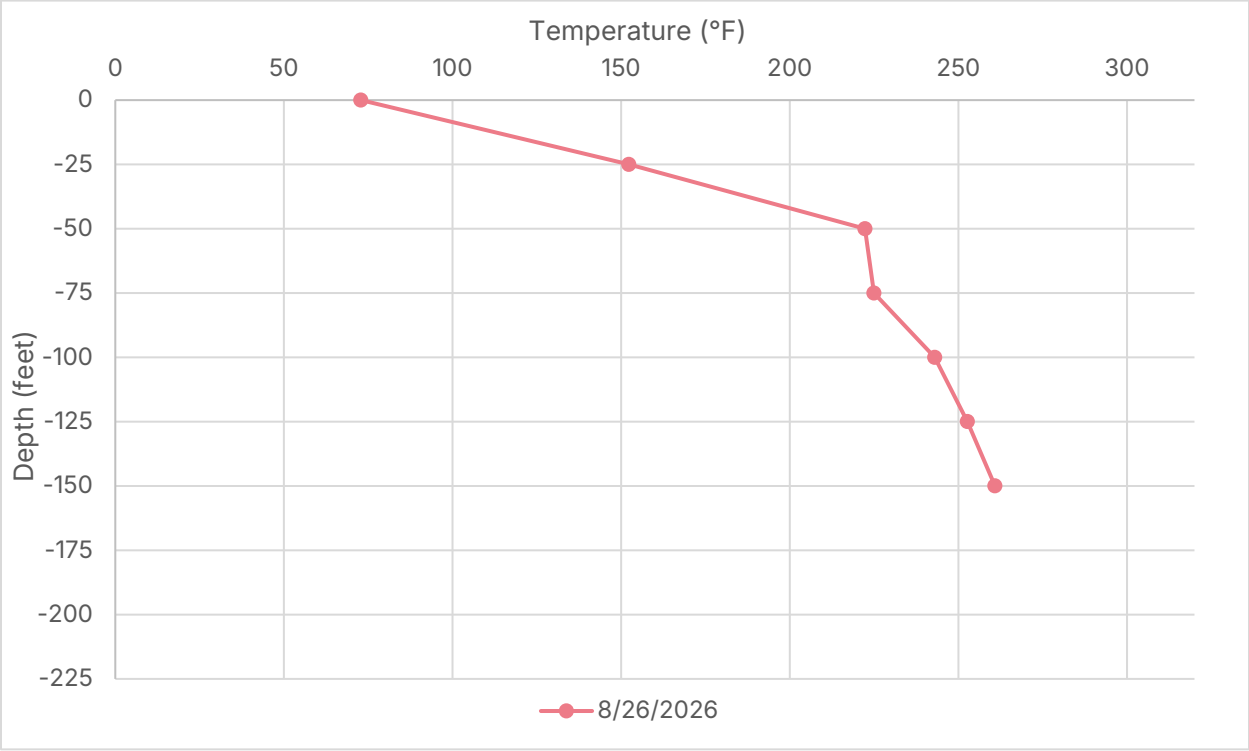


Figure B - 5 Average Temperatures Recorded by TP-5 on August 5, 2026

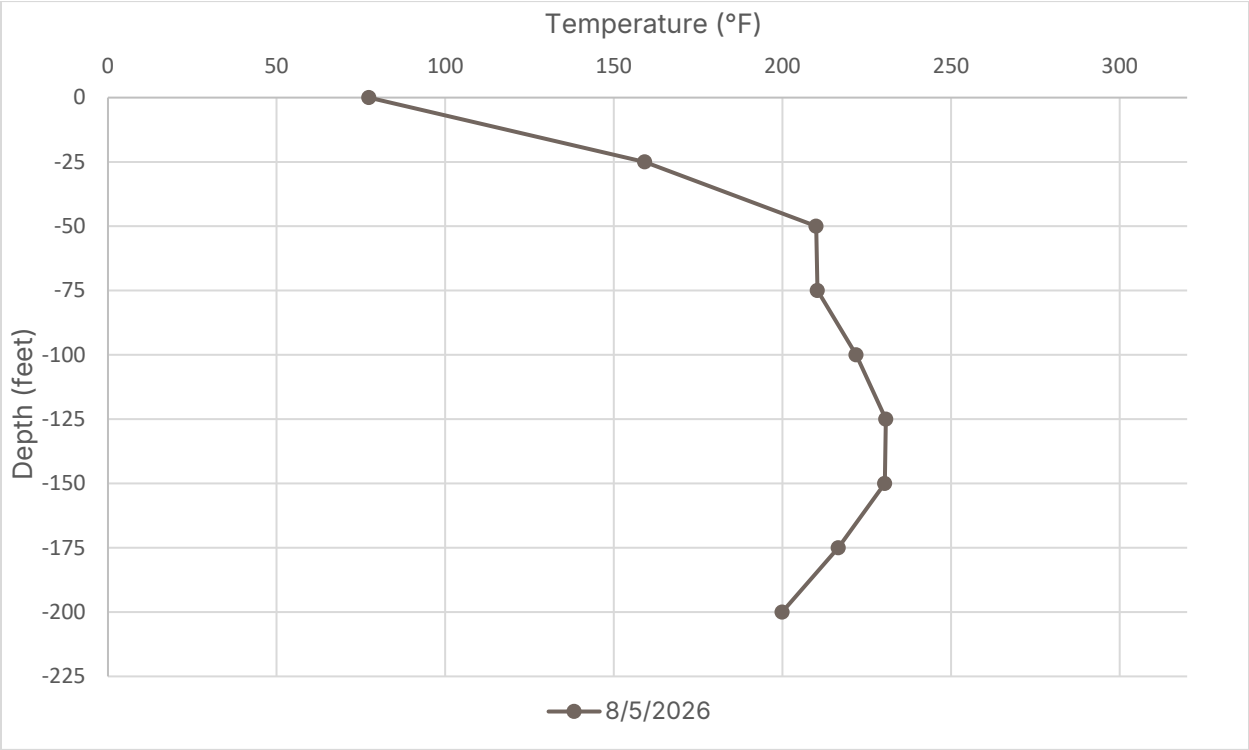


Figure B - 6 Average Temperatures Recorded by TP-5 on August 12, 2026

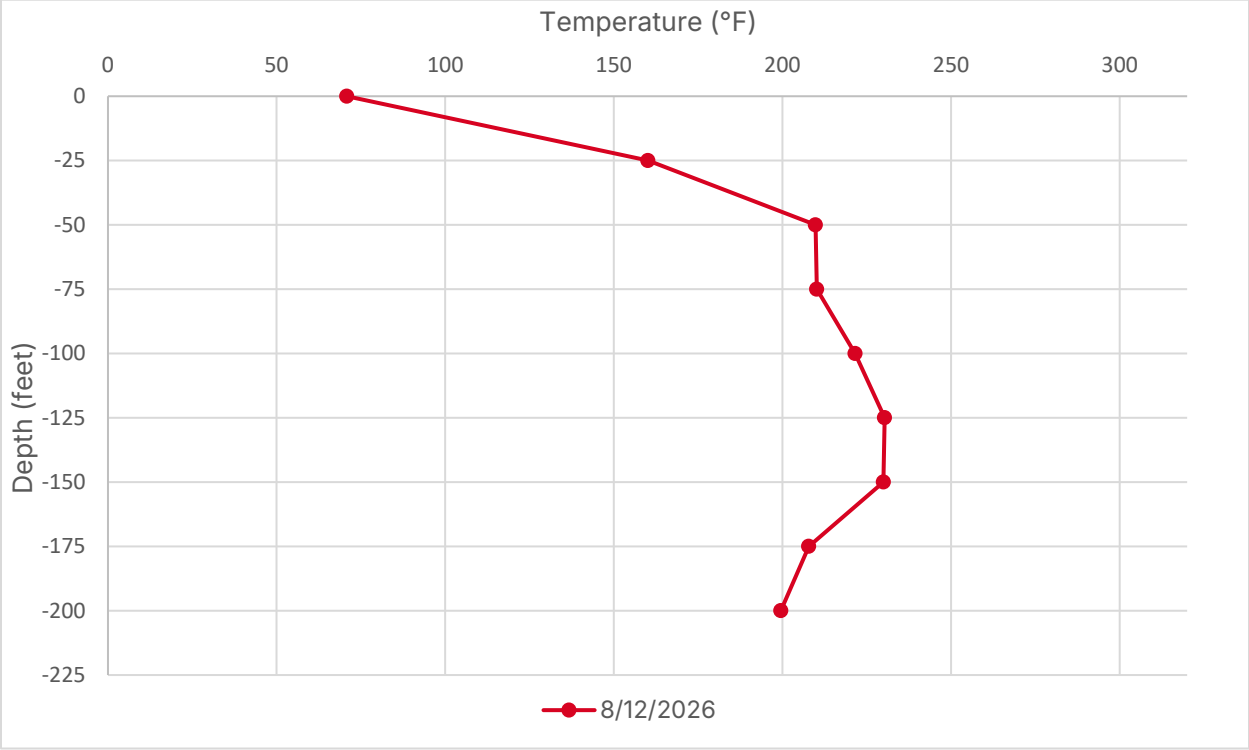


Figure B - 7 Average Temperatures Recorded by TP-5 on August 19, 2026

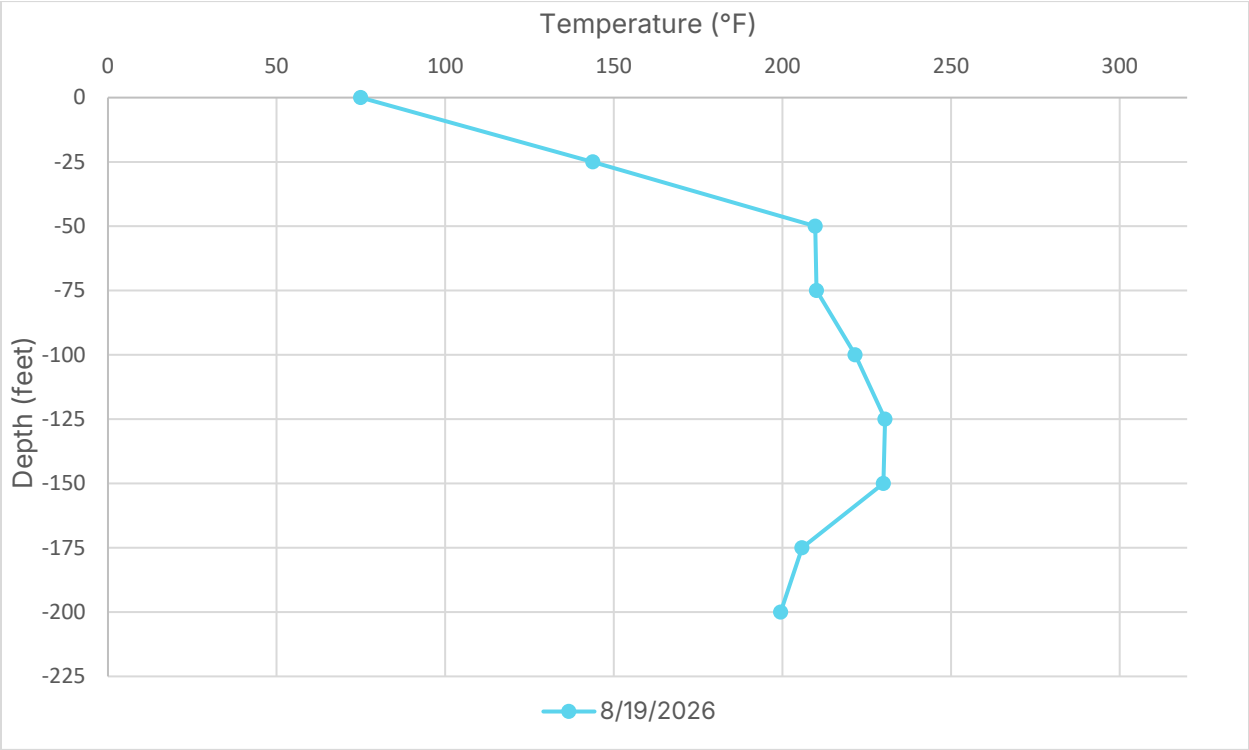


Figure B - 8 Average Temperatures Recorded by TP-5 on August 26, 2026

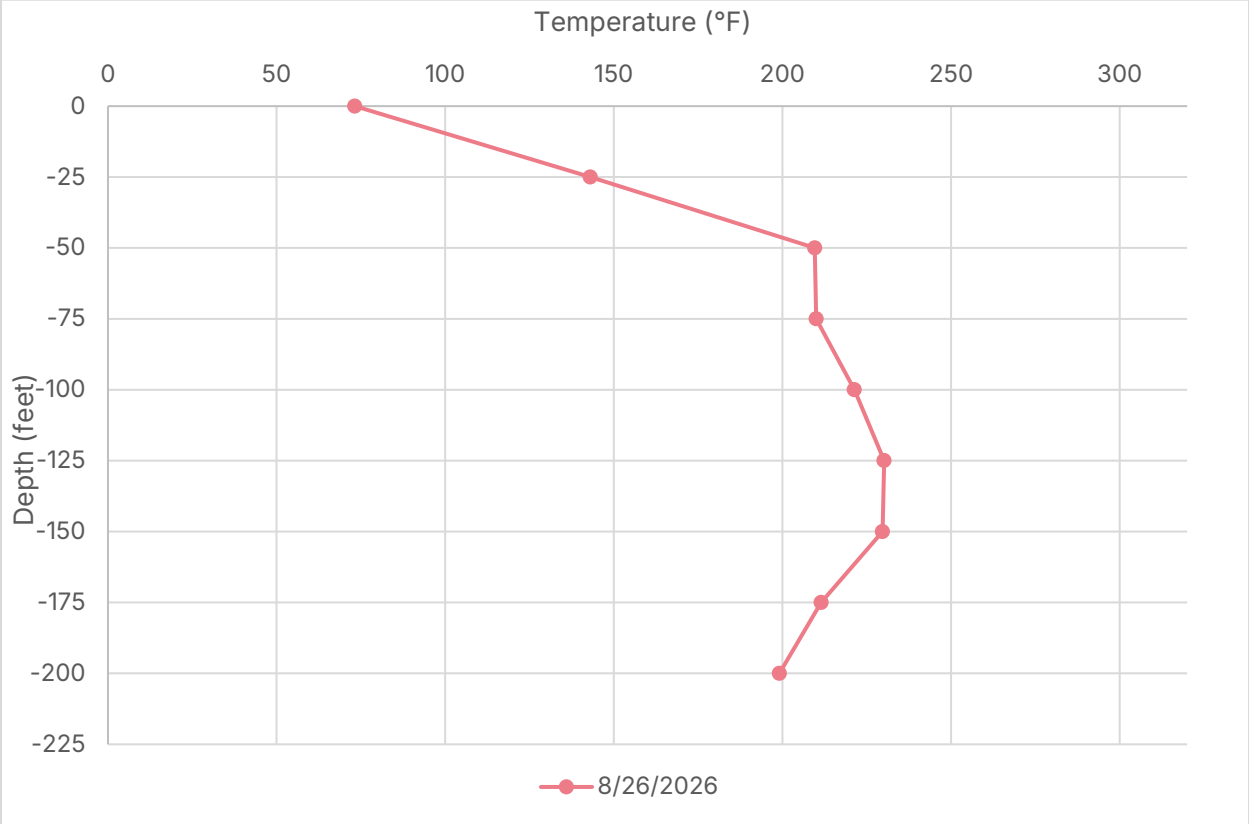


Figure B - 9 Average Temperatures Recorded by TP-8 on August 5, 2026

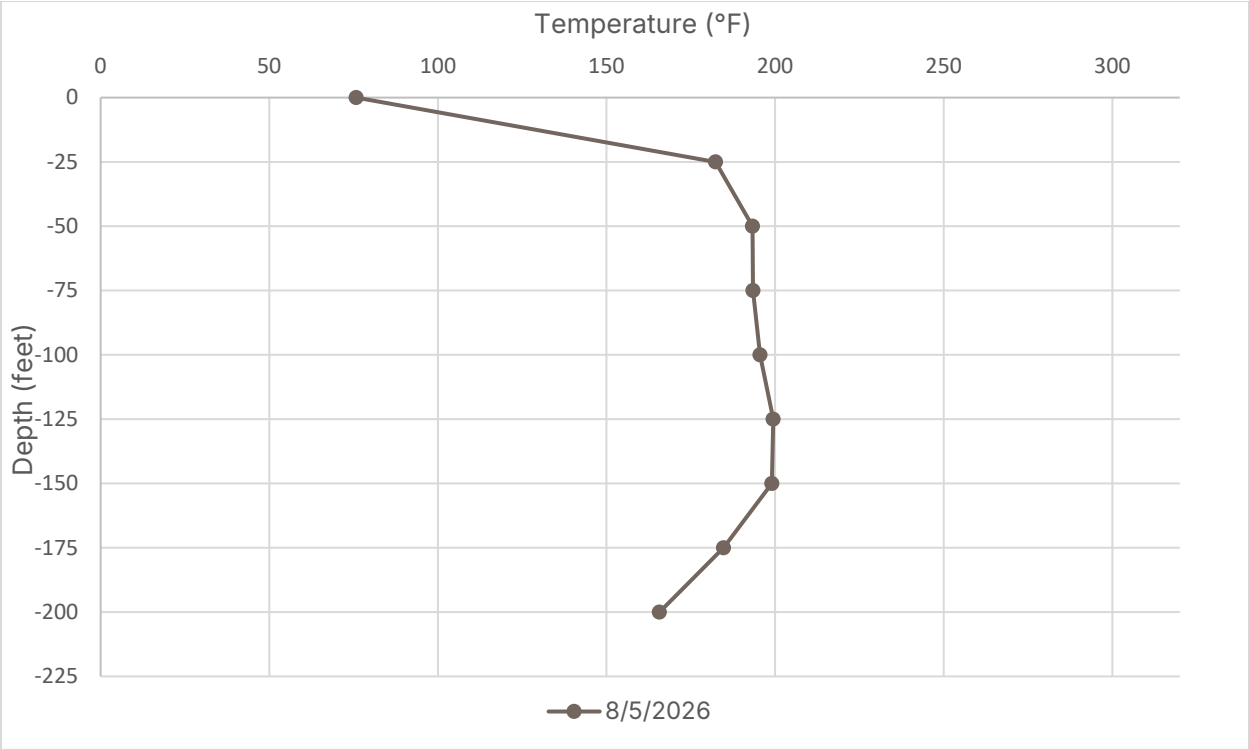


Figure B - 10 Average Temperatures Recorded by TP-8 on August 12, 2026

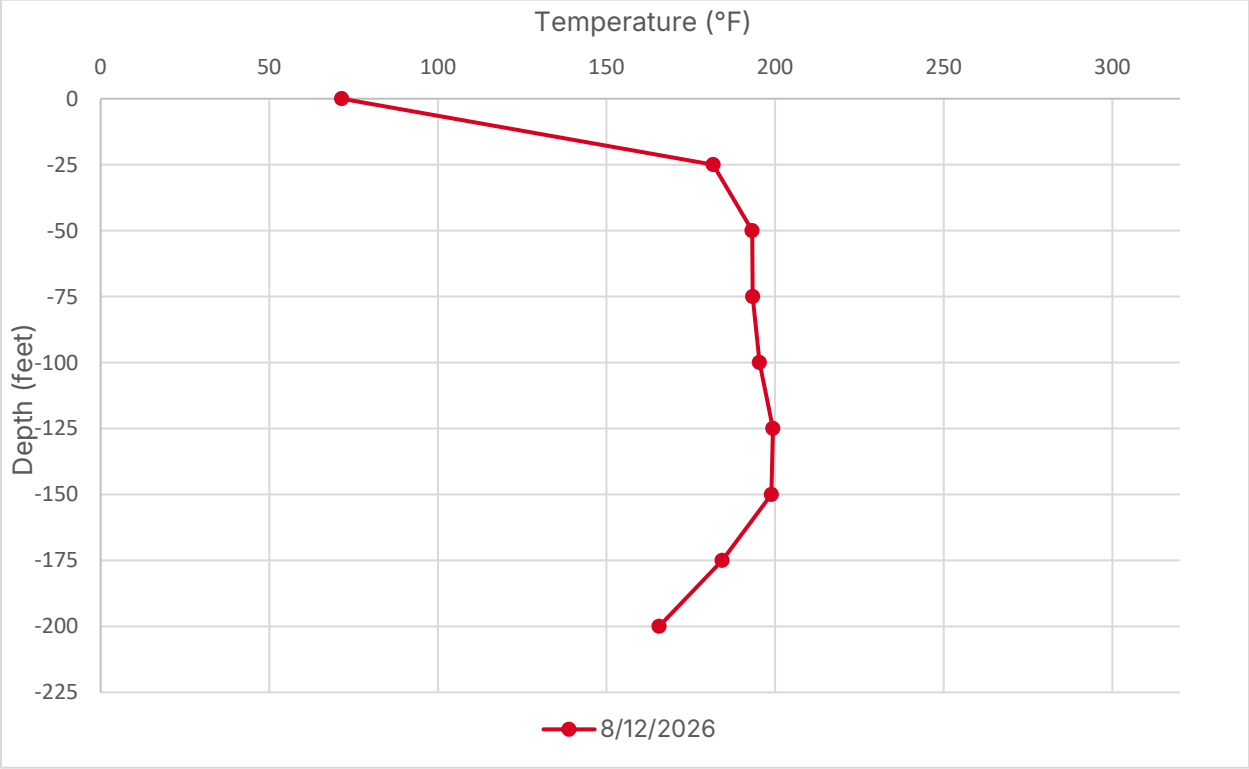


Figure B - 11 Average Temperatures Recorded by TP-8 on August 19, 2026

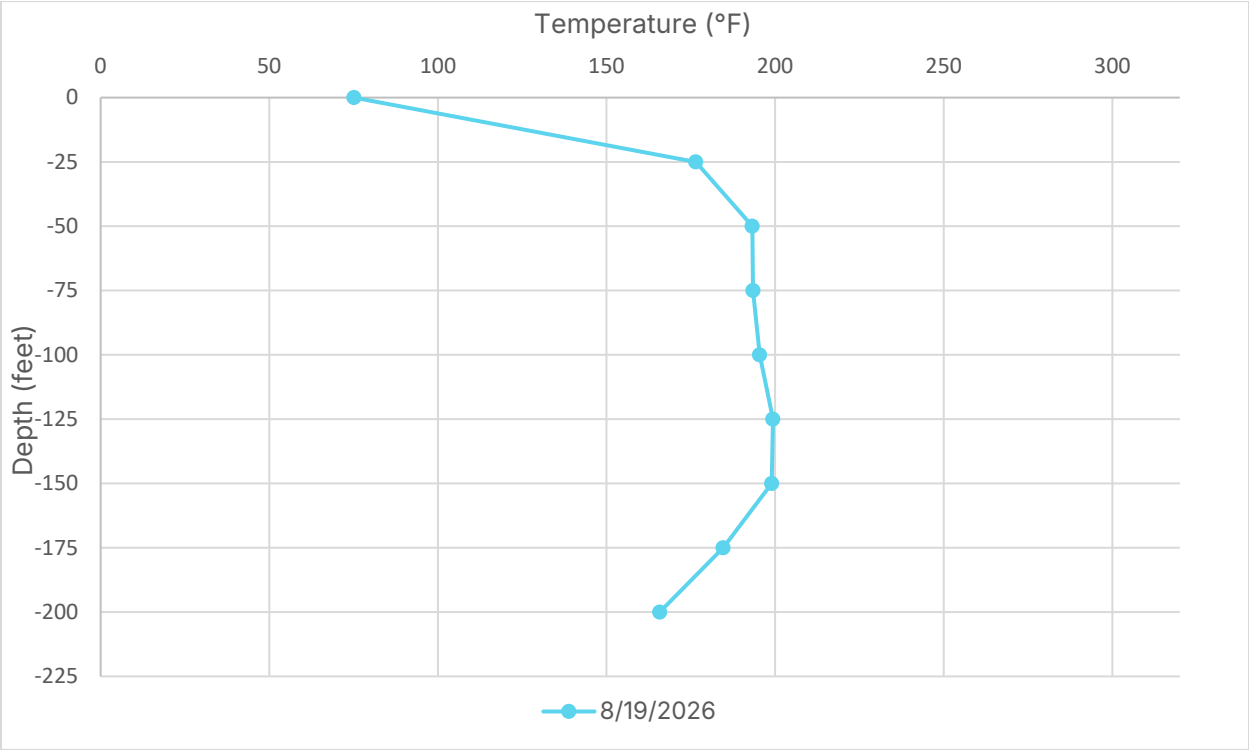


Figure B - 12 Average Temperatures Recorded by TP-8 on August 26, 2026

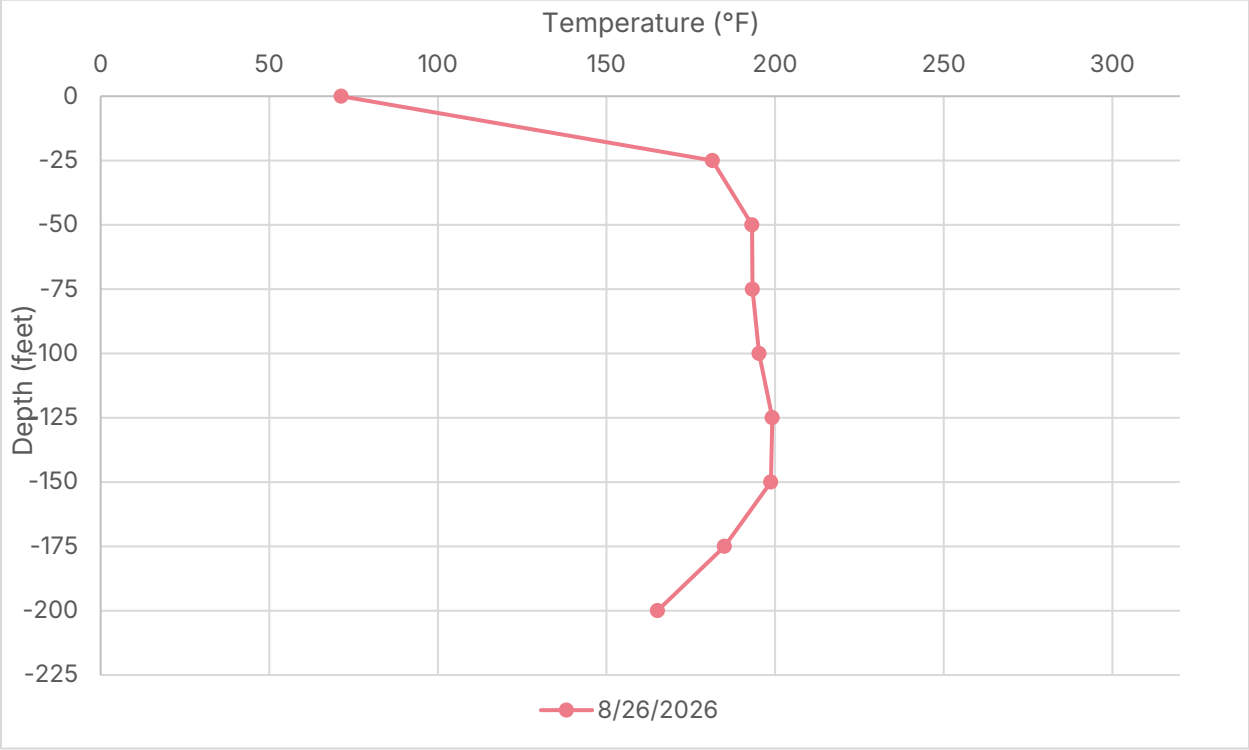


Figure B - 13 Average Temperatures Recorded by TP-9 on August 5, 2026

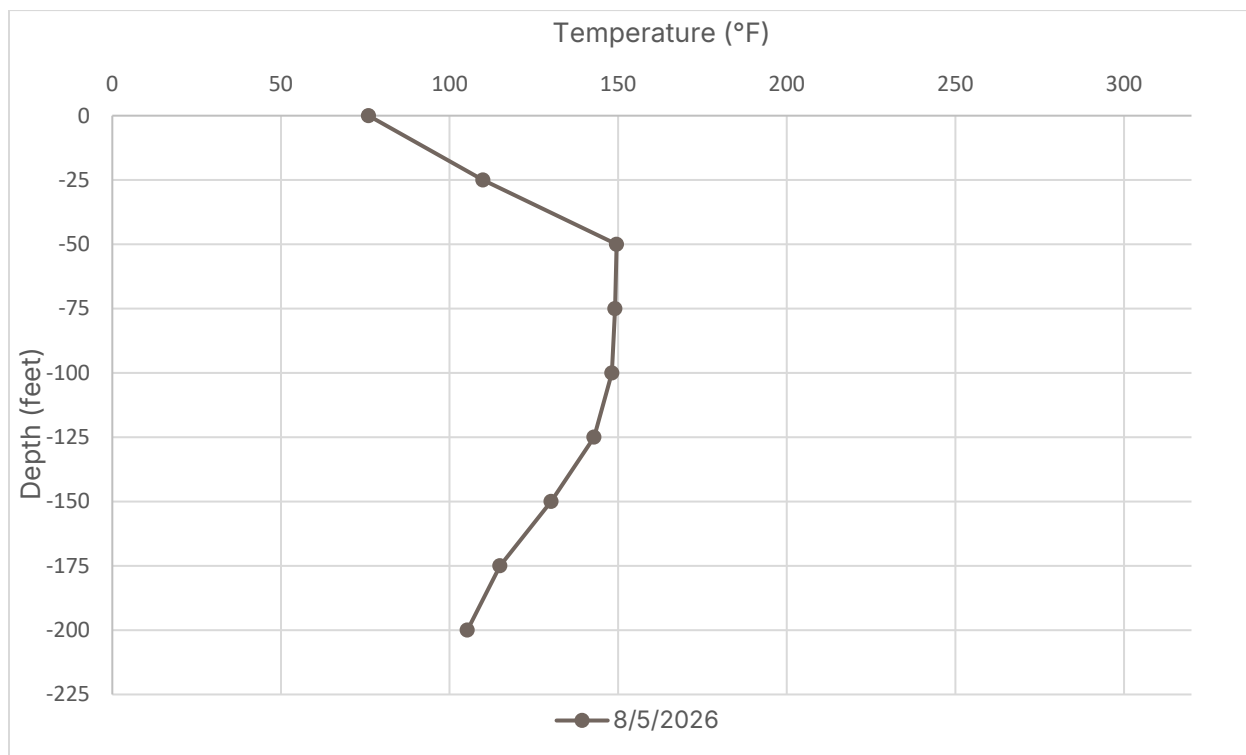


Figure B - 14 Average Temperatures Recorded by TP-9 on August 12, 2026

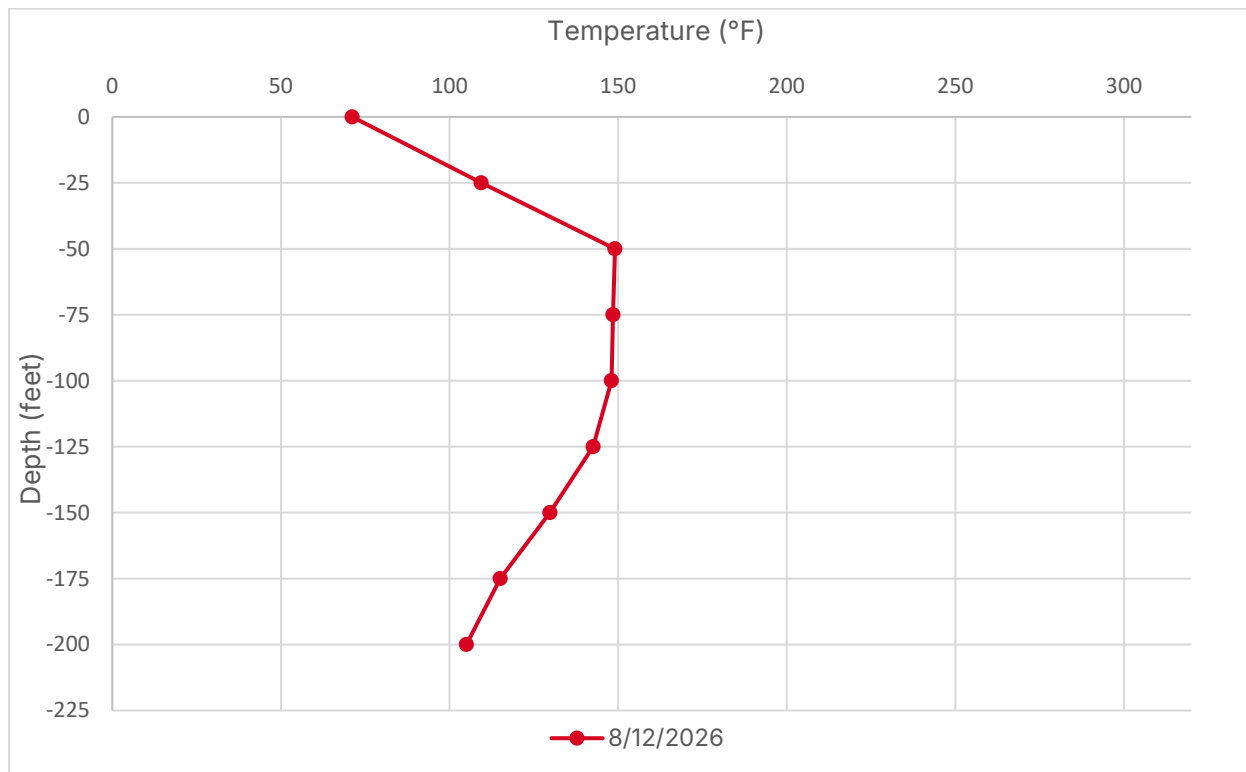


Figure B - 15 Average Temperatures Recorded by TP-9 on August 19, 2026

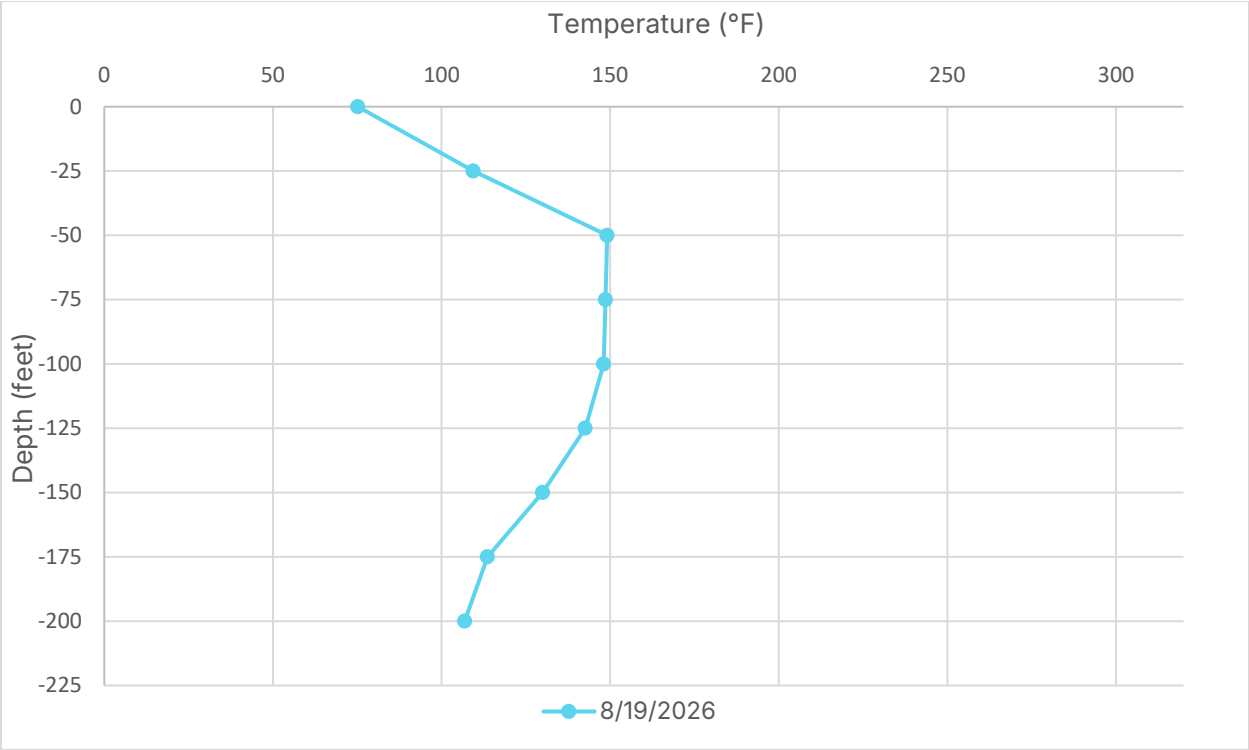
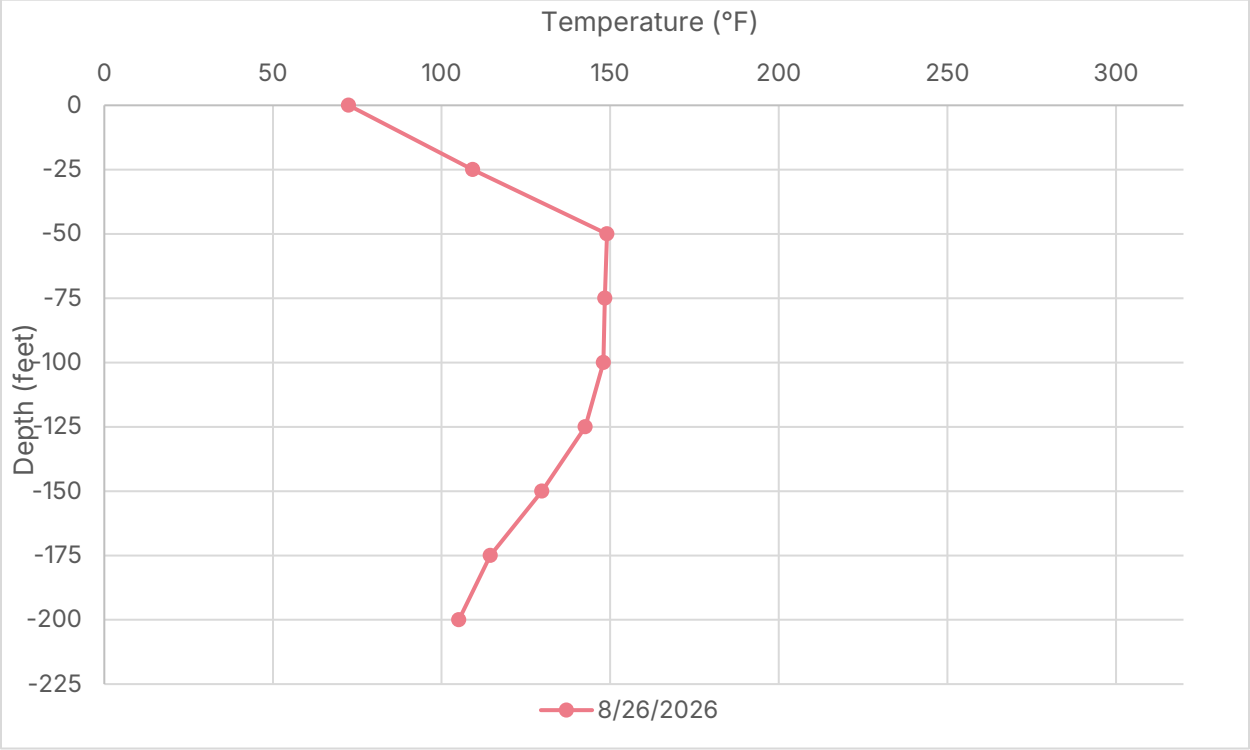


Figure B - 16 Average Temperatures Recorded by TP-9 on August 26, 2026



APPENDIX C | DAILY WELLHEAD TEMPERATURE AVERAGES

Solid Waste Permit 588 Daily Wellhead Temperature Averages

The data provided in this report represent initial readings provided by field instrumentation without Validation, analysis, quality assurance review, or context based on operating conditions. This report is subject to revision following quality assurance review and an analysis of operating conditions. SCS will continue to provide a supplemental report with additional information and further analysis on a monthly basis at a minimum.

SCS ENGINEERS

07222143.00 | September 3, 2026

274 Granite Run Drive
Lancaster, PA 17601
717-550-6330

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 32R

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	108.7	105.5	112.6
Aug 2	109.5	106.5	114.3
Aug 3	109.4	106.7	113.5
Aug 4	107.9	104.3	114.5
Aug 5	105.2	92.5	112.6
Aug 6	108.3	104.4	112.7
Aug 7	107.2	102.6	113.1
Aug 8	104.3	100.7	110.6
Aug 9	104.1	98.2	111.5
Aug 10	103.2	98.5	108.6
Aug 11	101.0	93.8	108.7
Aug 12	99.3	94.8	105.3
Aug 13	98.8	92.3	107.7
Aug 14	100.9	95.2	108.8
Aug 15	95.8	68.6	108.2
Aug 16	101.1	94.4	108.4
Aug 17	96.4	87.7	107.5
Aug 18	97.9	92.9	105.7
Aug 19	96.7	90.1	104.8
Aug 20	94.8	89.6	103.5
Aug 21	92.4	84.0	101.6
Aug 22	93.8	87.2	104.2
Aug 23	92.0	83.9	101.5
Aug 24	89.6	79.7	101.2
Aug 25	88.8	76.9	101.7
Aug 26	90.7	79.3	103.7
Aug 27	92.9	85.4	103.0
Aug 28	91.8	82.9	103.2
Aug 29	91.6	80.8	104.5
Aug 30	88.8	70.3	105.4
Summary	98.8	88.8	109.5

Solid Waste Permit 588 Daily Wellhead Temperature
Averages for Well 33B
 Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	75.9	64.9	91.8
Aug 2	80.9	71.7	102.3
Aug 3	79.7	70.1	98.8
Aug 4	78.3	68.2	101.4
Aug 5	81.7	66.4	98.7
Aug 6	82.3	68.7	98.8
Aug 7	82.6	70.2	102.8
Aug 8	77.6	67.1	95.3
Aug 9	80.2	67.6	103.5
Aug 10	80.3	66.9	98.8
Aug 11	78.4	67.2	99.3
Aug 12	75.7	67.1	92.0
Aug 13	76.4	66.8	97.4
Aug 14	82.0	69.8	101.2
Aug 15	79.3	69.4	97.7
Aug 16	85.3	68.7	104.5
Aug 17	78.0	68.3	103.6
Aug 18	81.8	70.8	99.5
Aug 19	82.0	67.6	101.8
Aug 20	79.3	68.1	97.4
Aug 21	77.4	67.4	97.9
Aug 22	80.9	67.6	100.3
Aug 23	78.2	64.1	95.8
Aug 24	75.9	59.1	95.9
Aug 25	77.2	57.9	100.2
Aug 26	79.1	61.8	101.7
Aug 27	83.1	68.9	102.4
Aug 28	81.0	66.5	102.2
Aug 29	81.7	65.6	99.6
Aug 30	84.6	67.6	104.8
Summary	79.9	75.7	85.3

Solid Waste Permit 588 Daily Wellhead Temperature
Averages for Well 36A
 Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	76.4	68.2	89.2
Aug 2	80.9	74.0	98.3
Aug 3	81.4	72.6	96.6
Aug 4	78.6	71.4	98.8
Aug 5	82.3	70.3	100.4
Aug 6	83.6	71.9	100.4
Aug 7	83.2	73.9	98.8
Aug 8	79.2	71.3	92.0
Aug 9	81.3	72.0	100.4
Aug 10	81.3	71.6	96.2
Aug 11	79.8	71.1	97.5
Aug 12	78.0	71.6	91.7
Aug 13	79.1	70.8	94.4
Aug 14	83.5	75.2	99.3
Aug 15	81.2	73.0	95.7
Aug 16	85.7	75.0	101.6
Aug 17	79.8	73.7	96.5
Aug 18	83.3	75.7	96.9
Aug 19	82.9	71.5	102.1
Aug 20	80.3	71.3	95.2
Aug 21	78.8	69.5	98.9
Aug 22	81.5	71.1	98.9
Aug 23	78.7	68.2	94.4
Aug 24	77.3	64.4	95.8
Aug 25	78.2	62.8	103.5
Aug 26	80.3	65.6	98.7
Aug 27	83.1	72.3	101.8
Aug 28	81.9	70.0	100.1
Aug 29	82.7	69.7	101.1
Aug 30	84.9	71.1	106.6
Summary	81.0	76.4	85.7

Solid Waste Permit 588 Daily Wellhead Temperature
Averages for Well 38
Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	103.3	101.2	105.6
Aug 2	103.8	102.7	106.9
Aug 3	104.4	102.9	106.8
Aug 4	104.9	103.3	107.3
Aug 5	103.6	94.3	106.8
Aug 6	105.9	104.4	107.9
Aug 7	106.1	103.9	108.1
Aug 8	105.4	104.3	107.3
Aug 9	106.0	104.4	108.5
Aug 10	106.3	104.5	108.1
Aug 11	105.9	103.6	108.1
Aug 12	106.0	104.8	107.6
Aug 13	106.2	104.4	108.7
Aug 14	107.2	105.7	109.2
Aug 15	103.2	80.8	109.0
Aug 16	107.7	106.1	109.9
Aug 17	107.1	104.9	110.1
Aug 18	107.5	106.2	109.0
Aug 19	107.4	106.0	109.5
Aug 20	107.3	106.2	108.9
Aug 21	107.1	105.4	109.1
Aug 22	107.0	100.2	109.5
Aug 23	107.4	105.9	109.2
Aug 24	107.1	105.2	109.3
Aug 25	107.2	105.1	109.6
Aug 26	107.6	105.4	110.2
Aug 27	108.0	106.3	110.2
Aug 28	107.8	105.8	110.8
Aug 29	108.0	106.2	110.7
Aug 30	102.8	82.9	111.0
Summary	106.2	102.8	108.0

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 42

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	136.9	136.1	137.7
Aug 2	137.4	136.9	138.4
Aug 3	137.7	137.0	138.8
Aug 4	138.0	137.4	139.1
Aug 5	133.0	99.3	139.2
Aug 6	138.5	137.7	139.2
Aug 7	138.8	138.2	139.9
Aug 8	138.9	138.4	139.7
Aug 9	139.2	138.6	140.3
Aug 10	139.5	138.8	140.2
Aug 11	139.5	138.9	140.5
Aug 12	139.6	138.9	140.4
Aug 13	140.0	139.2	141.0
Aug 14	140.4	139.7	141.2
Aug 15	134.1	82.2	141.1
Aug 16	140.6	140.0	141.4
Aug 17	140.5	139.7	141.4
Aug 18	140.0	139.5	140.6
Aug 19	139.7	139.4	140.5
Aug 20	139.6	139.0	140.3
Aug 21	139.6	138.9	140.4
Aug 22	136.9	104.2	140.2
Aug 23	139.5	139.0	140.2
Aug 24	139.4	138.8	140.2
Aug 25	139.6	138.9	140.5
Aug 26	139.7	136.9	140.6
Aug 27	140.1	139.6	140.8
Aug 28	140.2	139.6	141.1
Aug 29	140.4	139.8	141.2
Aug 30	127.8	101.7	141.5
Summary	138.5	127.8	140.6

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 47

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	79.2	71.0	92.3
Aug 2	83.4	77.3	97.3
Aug 3	82.7	76.2	92.9
Aug 4	81.7	74.5	99.3
Aug 5	83.9	73.9	100.7
Aug 6	84.7	75.1	99.4
Aug 7	84.3	75.6	97.7
Aug 8	80.5	73.4	92.3
Aug 9	82.3	72.9	98.0
Aug 10	82.3	73.5	95.4
Aug 11	80.7	70.9	95.6
Aug 12	78.7	72.4	88.5
Aug 13	79.4	72.0	94.3
Aug 14	83.6	75.3	97.8
Aug 15	80.7	69.4	95.6
Aug 16	85.1	74.8	100.4
Aug 17	79.8	72.9	96.7
Aug 18	81.9	74.7	93.4
Aug 19	81.2	71.6	97.7
Aug 20	79.5	71.7	94.4
Aug 21	78.0	71.0	94.5
Aug 22	80.8	70.9	94.7
Aug 23	77.8	68.1	91.4
Aug 24	75.3	63.4	92.3
Aug 25	75.8	62.2	95.0
Aug 26	78.4	65.1	95.5
Aug 27	81.4	71.6	100.9
Aug 28	80.4	69.3	97.2
Aug 29	80.2	68.1	99.1
Aug 30	81.7	69.4	104.9
Summary	80.9	75.3	85.1

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 48

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	73.7	61.9	90.7
Aug 2	78.0	70.2	100.7
Aug 3	78.8	68.4	95.2
Aug 4	76.5	66.1	98.9
Aug 5	79.3	64.9	99.1
Aug 6	79.5	66.8	100.6
Aug 7	80.1	68.3	99.1
Aug 8	75.1	65.3	93.3
Aug 9	78.2	66.0	99.1
Aug 10	77.5	65.9	95.5
Aug 11	76.2	66.6	97.1
Aug 12	74.0	66.1	88.6
Aug 13	75.1	65.7	97.4
Aug 14	80.4	68.5	98.7
Aug 15	77.2	68.8	96.0
Aug 16	82.1	67.6	101.2
Aug 17	76.0	66.7	97.0
Aug 18	80.3	69.5	97.8
Aug 19	79.3	65.9	99.0
Aug 20	76.4	65.6	93.0
Aug 21	75.3	66.8	95.7
Aug 22	78.2	65.9	98.6
Aug 23	74.2	61.5	91.7
Aug 24	71.3	56.2	91.6
Aug 25	72.6	54.7	96.5
Aug 26	75.4	59.1	96.2
Aug 27	79.4	67.1	99.2
Aug 28	77.9	64.7	99.9
Aug 29	78.1	62.4	100.0
Aug 30	80.4	64.8	102.1
Summary	77.2	71.3	82.1

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 49

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	153.8	152.9	154.4
Aug 2	154.3	153.7	155.0
Aug 3	153.8	153.2	154.3
Aug 4	153.4	152.5	154.4
Aug 5	151.4	130.9	156.9
Aug 6	153.5	152.8	154.5
Aug 7	153.3	152.5	154.1
Aug 8	153.1	152.7	153.9
Aug 9	153.3	152.1	154.3
Aug 10	153.2	152.8	153.9
Aug 11	152.5	137.0	154.6
Aug 12	153.2	152.3	153.6
Aug 13	152.8	152.2	153.6
Aug 14	152.9	152.4	153.7
Aug 15	150.8	126.4	155.7
Aug 16	153.4	152.9	154.2
Aug 17	152.8	148.9	153.9
Aug 18	152.9	152.5	153.6
Aug 19	152.6	151.9	153.0
Aug 20	152.3	151.6	153.4
Aug 21	152.3	149.8	153.5
Aug 22	152.4	139.0	155.5
Aug 23	152.8	152.5	153.5
Aug 24	152.8	152.3	153.7
Aug 25	152.9	152.0	154.1
Aug 26	152.6	136.5	154.2
Aug 27	154.9	152.3	157.4
Aug 28	156.2	155.7	156.7
Aug 29	156.1	155.4	156.8
Aug 30	156.6	149.5	159.6
Summary	153.3	150.8	156.6

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 50

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	99.1	97.5	101.3
Aug 2	99.7	98.8	102.3
Aug 3	99.9	98.6	102.8
Aug 4	99.7	98.2	101.9
Aug 5	98.9	94.5	102.5
Aug 6	100.3	98.5	102.6
Aug 7	100.0	98.4	102.0
Aug 8	99.2	98.1	101.2
Aug 9	99.7	98.2	102.2
Aug 10	99.7	98.2	101.6
Aug 11	99.1	96.6	101.1
Aug 12	99.0	97.6	101.1
Aug 13	99.2	97.3	101.7
Aug 14	100.0	98.5	102.3
Aug 15	96.7	79.9	102.2
Aug 16	100.2	98.6	102.2
Aug 17	99.3	97.5	102.1
Aug 18	99.8	98.4	101.7
Aug 19	99.8	98.1	102.1
Aug 20	99.3	98.1	101.0
Aug 21	99.2	97.1	101.5
Aug 22	99.3	95.8	101.7
Aug 23	98.9	97.7	100.7
Aug 24	98.6	96.7	101.1
Aug 25	99.1	96.8	101.8
Aug 26	99.6	86.0	105.6
Aug 27	102.3	98.5	106.1
Aug 28	103.5	102.2	105.2
Aug 29	103.5	101.9	105.7
Aug 30	98.7	82.2	103.0
Summary	99.7	96.7	103.5

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 51

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	72.2	62.4	87.3
Aug 2	77.0	70.0	95.6
Aug 3	75.7	67.8	89.6
Aug 4	75.6	66.5	96.2
Aug 5	78.2	65.0	95.8
Aug 6	78.1	66.6	93.5
Aug 7	78.2	68.2	92.3
Aug 8	73.5	65.0	90.1
Aug 9	76.1	65.8	94.8
Aug 10	75.7	65.2	89.4
Aug 11	74.9	66.3	92.4
Aug 12	72.3	66.3	82.0
Aug 13	73.7	65.6	90.4
Aug 14	78.3	68.5	94.4
Aug 15	76.7	68.6	94.1
Aug 16	80.7	67.7	98.4
Aug 17	74.5	66.4	96.2
Aug 18	77.2	69.0	90.1
Aug 19	76.2	65.7	92.1
Aug 20	75.3	66.1	89.4
Aug 21	73.6	66.4	86.6
Aug 22	76.4	66.2	92.5
Aug 23	72.5	61.9	86.1
Aug 24	69.8	56.7	85.9
Aug 25	70.9	55.3	89.5
Aug 26	74.4	60.2	91.8
Aug 27	77.4	67.1	93.1
Aug 28	76.1	64.5	92.0
Aug 29	76.6	63.4	93.3
Aug 30	78.9	65.2	98.8
Summary	75.6	69.8	80.7

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 52

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	169.5	168.2	170.4
Aug 2	168.8	167.5	169.3
Aug 3	166.6	164.8	168.0
Aug 4	164.1	162.9	165.3
Aug 5	164.5	162.3	172.2
Aug 6	161.8	160.7	162.3
Aug 7	160.9	160.3	161.6
Aug 8	161.4	160.6	162.0
Aug 9	161.1	159.9	162.1
Aug 10	159.7	158.8	160.7
Aug 11	156.4	95.6	160.6
Aug 12	158.5	157.1	159.7
Aug 13	157.2	156.2	158.1
Aug 14	156.8	155.9	157.4
Aug 15	139.9	60.9	162.1
Aug 16	156.3	155.6	157.1
Aug 17	155.8	153.9	156.6
Aug 18	156.8	156.4	157.3
Aug 19	156.8	155.7	158.0
Aug 20	156.4	155.2	157.3
Aug 21	156.0	154.8	157.0
Aug 22	152.7	87.2	159.0
Aug 23	155.4	154.6	155.9
Aug 24	154.8	154.0	155.6
Aug 25	150.8	60.9	155.8
Aug 26	153.5	124.4	157.2
Aug 27	154.9	154.3	155.9
Aug 28	154.6	154.1	155.3
Aug 29	154.7	153.7	155.6
Aug 30	128.6	70.1	155.5
Summary	156.8	128.6	169.5

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 53

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	179.3	177.3	180.6
Aug 2	179.9	178.8	181.8
Aug 3	179.2	178.1	180.8
Aug 4	178.2	176.0	180.9
Aug 5	177.5	169.3	182.6
Aug 6	179.0	177.7	180.8
Aug 7	178.7	177.1	180.6
Aug 8	178.0	177.0	179.5
Aug 9	178.0	175.6	180.2
Aug 10	178.3	177.2	179.8
Aug 11	177.2	171.8	179.8
Aug 12	178.0	176.2	179.4
Aug 13	177.5	175.4	179.4
Aug 14	177.5	175.2	179.5
Aug 15	175.6	163.3	179.4
Aug 16	178.1	176.4	179.9
Aug 17	177.6	170.9	180.3
Aug 18	177.6	176.7	179.2
Aug 19	177.6	176.4	179.3
Aug 20	177.6	175.9	179.6
Aug 21	177.1	172.4	178.9
Aug 22	177.5	169.0	179.8
Aug 23	177.4	176.2	179.1
Aug 24	177.1	175.6	179.3
Aug 25	176.8	175.2	178.9
Aug 26	177.0	167.8	179.7
Aug 27	177.7	175.1	180.1
Aug 28	177.4	175.7	179.8
Aug 29	177.2	174.8	179.6
Aug 30	175.0	169.2	179.4
Summary	177.7	175.0	179.9

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 54

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	178.4	155.2	188.1
Aug 2	144.3	131.0	153.6
Aug 3	128.5	119.4	183.1
Aug 4	97.9	76.2	123.1
Aug 5	90.4	78.1	110.4
Aug 6	89.5	79.8	104.1
Aug 7	89.9	80.9	97.2
Aug 8	83.6	77.6	93.0
Aug 9	85.8	78.2	99.5
Aug 10	91.0	77.0	109.7
Aug 11	100.3	76.9	125.1
Aug 12	85.7	78.6	94.6
Aug 13	88.1	76.9	102.9
Aug 14	92.0	84.1	106.0
Aug 15	88.7	78.2	102.7
Aug 16	91.3	82.3	103.3
Aug 17	85.8	77.4	101.2
Aug 18	88.5	82.9	98.7
Aug 19	86.7	78.7	99.0
Aug 20	84.2	77.8	96.1
Aug 21	83.2	75.1	96.1
Aug 22	86.2	77.7	98.4
Aug 23	83.3	75.1	94.5
Aug 24	81.3	70.0	96.5
Aug 25	82.7	68.6	101.6
Aug 26	85.3	72.5	99.2
Aug 27	88.6	79.9	104.3
Aug 28	87.8	77.9	103.0
Aug 29	88.3	77.2	104.2
Aug 30	89.2	77.8	105.7
Summary	94.2	81.3	178.4

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 55

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	153.0	148.4	155.6
Aug 2	153.6	148.7	156.2
Aug 3	152.3	150.2	153.8
Aug 4	149.9	145.3	152.7
Aug 5	144.4	114.7	154.6
Aug 6	148.8	146.2	152.0
Aug 7	144.5	136.9	147.3
Aug 8	134.1	127.6	137.1
Aug 9	123.3	106.8	132.4
Aug 10	116.5	94.0	138.5
Aug 11	121.4	104.2	141.1
Aug 12	118.8	115.4	126.7
Aug 13	120.4	109.4	129.5
Aug 14	123.0	116.5	131.5
Aug 15	115.9	75.2	130.4
Aug 16	125.0	120.2	130.4
Aug 17	100.2	68.2	130.0
Aug 18	108.8	68.7	168.9
Aug 19	169.5	167.3	171.3
Aug 20	169.4	168.2	170.7
Aug 21	168.2	161.9	169.3
Aug 22	168.1	156.8	180.9
Aug 23	166.7	165.7	167.8
Aug 24	165.4	164.6	166.2
Aug 25	164.5	162.6	166.3
Aug 26	162.9	153.2	165.1
Aug 27	164.3	163.1	166.2
Aug 28	158.9	147.8	163.9
Aug 29	159.6	148.8	163.6
Aug 30	140.2	121.9	152.0
Summary	143.7	100.2	169.5

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 56

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	180.3	179.2	180.9
Aug 2	180.2	179.4	181.2
Aug 3	180.3	179.6	180.9
Aug 4	179.9	179.2	180.6
Aug 5	176.8	170.0	181.0
Aug 6	169.8	168.7	171.1
Aug 7	169.1	167.0	170.3
Aug 8	169.8	168.9	170.8
Aug 9	169.6	167.8	170.9
Aug 10	168.6	167.2	170.1
Aug 11	169.4	167.8	175.2
Aug 12	170.9	170.0	171.8
Aug 13	170.6	169.6	172.0
Aug 14	170.9	169.6	171.8
Aug 15	172.6	170.2	182.0
Aug 16	171.3	170.3	172.4
Aug 17	169.9	168.0	171.2
Aug 18	169.7	168.6	170.9
Aug 19	169.7	168.2	170.7
Aug 20	169.3	167.8	171.0
Aug 21	169.2	168.1	170.4
Aug 22	169.7	168.6	175.4
Aug 23	168.9	167.6	171.1
Aug 24	168.5	166.9	169.9
Aug 25	168.3	166.8	171.0
Aug 26	168.3	165.5	169.6
Aug 27	168.8	167.2	170.6
Aug 28	168.5	165.4	171.1
Aug 29	168.2	165.6	170.9
Aug 30	171.7	167.3	177.7
Summary	171.3	168.2	180.3

Solid Waste Permit 588 Daily Wellhead Temperature
Averages for Well 57
 Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	83.0	72.8	98.6
Aug 2	87.9	81.1	106.1
Aug 3	88.7	78.8	103.2
Aug 4	87.1	78.6	107.5
Aug 5	89.6	77.9	105.8
Aug 6	91.1	79.9	106.3
Aug 7	91.1	80.7	105.5
Aug 8	86.0	77.4	101.8
Aug 9	88.6	77.9	108.2
Aug 10	89.5	78.5	105.4
Aug 11	86.7	73.1	103.9
Aug 12	85.5	76.7	98.7
Aug 13	85.8	75.5	104.6
Aug 14	91.2	81.0	108.1
Aug 15	87.8	74.7	108.2
Aug 16	93.9	82.1	111.1
Aug 17	85.9	76.4	107.6
Aug 18	90.9	80.3	103.6
Aug 19	89.2	78.0	106.0
Aug 20	87.5	78.4	102.1
Aug 21	85.9	75.2	101.3
Aug 22	88.5	77.4	104.4
Aug 23	85.0	74.4	99.9
Aug 24	81.9	68.8	100.7
Aug 25	82.4	67.9	103.4
Aug 26	86.2	70.9	106.1
Aug 27	89.0	78.5	106.3
Aug 28	87.8	76.2	104.2
Aug 29	87.6	74.8	107.4
Aug 30	88.4	75.6	107.9
Summary	87.7	81.9	93.9

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 58

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	112.1	111.3	112.9
Aug 2	111.4	110.8	112.2
Aug 3	110.6	109.7	111.0
Aug 4	109.6	108.9	110.6
Aug 5	107.1	97.8	111.0
Aug 6	108.9	108.5	109.5
Aug 7	108.6	108.0	109.3
Aug 8	108.1	107.7	108.9
Aug 9	108.0	107.4	108.9
Aug 10	107.9	107.5	108.5
Aug 11	98.6	76.0	108.3
Aug 12	99.3	75.2	111.9
Aug 13	107.8	107.3	108.4
Aug 14	107.9	107.4	108.6
Aug 15	104.9	84.7	109.0
Aug 16	108.5	107.7	109.5
Aug 17	108.2	107.3	109.3
Aug 18	107.9	107.4	108.5
Aug 19	108.0	107.4	108.8
Aug 20	107.7	107.2	108.4
Aug 21	107.7	107.0	108.7
Aug 22	107.4	99.1	109.1
Aug 23	108.0	107.5	108.6
Aug 24	108.0	107.4	108.8
Aug 25	108.2	107.5	109.4
Aug 26	108.5	107.8	109.4
Aug 27	108.9	108.2	109.8
Aug 28	109.0	108.4	109.9
Aug 29	109.2	108.4	110.2
Aug 30	102.2	80.5	110.4
Summary	107.6	98.6	112.1

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 59

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	114.4	110.8	125.4
Aug 2	112.6	110.8	114.9
Aug 3	113.4	110.8	119.9
Aug 4	112.8	111.0	117.1
Aug 5	111.2	97.6	119.9
Aug 6	113.9	111.5	120.0
Aug 7	114.0	111.3	120.8
Aug 8	113.3	111.5	119.5
Aug 9	112.7	110.8	115.1
Aug 10	114.0	111.4	120.2
Aug 11	113.5	104.1	121.8
Aug 12	113.6	111.1	119.4
Aug 13	114.5	111.1	121.0
Aug 14	115.6	113.2	122.7
Aug 15	108.4	69.1	117.0
Aug 16	115.0	113.4	117.0
Aug 17	115.2	111.7	123.5
Aug 18	116.0	113.2	122.1
Aug 19	116.0	113.1	122.6
Aug 20	115.7	113.6	122.8
Aug 21	114.6	112.1	116.6
Aug 22	114.3	98.5	117.1
Aug 23	114.8	113.0	117.0
Aug 24	115.7	112.4	121.6
Aug 25	116.0	113.0	121.8
Aug 26	119.7	113.4	129.8
Aug 27	118.0	115.6	120.7
Aug 28	118.0	115.2	124.3
Aug 29	117.4	115.0	121.7
Aug 30	106.4	69.8	120.2
Summary	114.4	106.4	119.7

Solid Waste Permit 588 Daily Wellhead Temperature
Averages for Well 60
 Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	73.1	62.8	87.9
Aug 2	77.7	70.5	96.5
Aug 3	76.9	68.9	88.4
Aug 4	76.7	66.9	93.8
Aug 5	82.7	71.8	95.0
Aug 6	83.8	74.3	96.5
Aug 7	84.1	75.4	96.6
Aug 8	81.4	73.2	93.1
Aug 9	84.0	75.1	99.2
Aug 10	84.4	75.8	96.8
Aug 11	81.4	70.1	96.0
Aug 12	78.4	71.6	90.8
Aug 13	80.7	70.6	96.7
Aug 14	85.6	77.4	99.8
Aug 15	82.4	73.8	97.8
Aug 16	87.8	77.2	100.7
Aug 17	82.5	74.3	101.9
Aug 18	86.6	78.6	98.0
Aug 19	86.2	75.9	101.6
Aug 20	84.2	75.9	96.1
Aug 21	82.7	72.3	96.9
Aug 22	85.4	76.6	98.5
Aug 23	82.2	72.5	94.2
Aug 24	79.8	67.0	95.7
Aug 25	81.2	65.9	99.9
Aug 26	84.2	70.4	100.7
Aug 27	89.0	78.9	103.6
Aug 28	87.6	77.9	102.6
Aug 29	88.2	76.6	103.6
Aug 30	89.1	77.5	104.9
Summary	83.0	73.1	89.1

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 61

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	125.4	123.9	127.4
Aug 2	127.8	126.5	129.8
Aug 3	130.2	129.0	131.2
Aug 4	136.7	109.1	144.6
Aug 5	145.2	128.6	154.3
Aug 6	146.1	145.4	147.4
Aug 7	146.6	145.9	147.9
Aug 8	147.2	146.5	147.8
Aug 9	147.7	147.0	149.1
Aug 10	148.0	147.4	148.9
Aug 11	142.8	103.8	148.2
Aug 12	144.6	140.5	147.6
Aug 13	146.4	145.2	147.8
Aug 14	146.4	144.5	148.0
Aug 15	144.3	119.9	149.1
Aug 16	147.5	146.5	149.0
Aug 17	147.4	145.5	149.0
Aug 18	148.7	147.5	149.7
Aug 19	149.3	148.3	150.6
Aug 20	149.4	148.2	150.5
Aug 21	149.5	147.5	150.9
Aug 22	150.1	135.6	160.3
Aug 23	149.9	149.4	150.8
Aug 24	149.8	149.0	150.9
Aug 25	150.1	148.9	151.8
Aug 26	150.6	149.5	151.8
Aug 27	151.3	150.4	152.5
Aug 28	151.0	150.3	152.2
Aug 29	151.1	150.1	152.4
Aug 30	156.6	147.4	170.6
Summary	145.9	125.4	156.6

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 62

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	97.0	93.5	102.0
Aug 2	98.9	96.7	105.3
Aug 3	100.2	95.8	105.6
Aug 4	100.2	97.1	105.6
Aug 5	99.6	91.5	106.7
Aug 6	102.0	98.4	106.1
Aug 7	101.7	98.4	106.4
Aug 8	100.6	98.3	105.0
Aug 9	101.3	97.5	106.8
Aug 10	101.8	98.3	106.6
Aug 11	101.4	97.3	105.4
Aug 12	101.1	98.1	104.3
Aug 13	100.8	97.5	105.6
Aug 14	102.4	99.3	107.4
Aug 15	98.8	72.1	108.1
Aug 16	103.7	100.3	108.1
Aug 17	102.1	96.2	109.2
Aug 18	101.9	98.2	108.7
Aug 19	101.0	96.8	106.7
Aug 20	100.3	96.9	105.4
Aug 21	99.4	95.1	106.5
Aug 22	100.0	96.5	105.8
Aug 23	100.1	95.9	105.5
Aug 24	99.1	93.8	105.2
Aug 25	99.2	93.5	105.9
Aug 26	100.9	95.7	106.9
Aug 27	102.3	97.9	107.4
Aug 28	101.5	97.5	106.1
Aug 29	101.3	96.8	106.5
Aug 30	96.3	73.2	106.7
Summary	100.6	96.3	103.7

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 63

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	72.7	61.5	87.1
Aug 2	77.2	69.6	97.2
Aug 3	77.2	68.2	96.0
Aug 4	75.1	65.5	98.1
Aug 5	77.4	64.6	96.6
Aug 6	79.2	66.6	95.6
Aug 7	78.7	67.8	96.8
Aug 8	74.4	65.2	91.3
Aug 9	78.0	65.6	97.2
Aug 10	76.4	65.3	91.4
Aug 11	75.4	66.2	93.6
Aug 12	73.1	65.9	86.0
Aug 13	74.3	65.2	93.3
Aug 14	79.4	67.9	98.3
Aug 15	76.9	68.3	95.7
Aug 16	81.0	67.6	99.3
Aug 17	75.0	66.2	99.0
Aug 18	78.8	69.1	95.2
Aug 19	77.8	65.6	96.4
Aug 20	76.1	65.6	92.2
Aug 21	74.5	66.3	91.2
Aug 22	77.2	65.4	95.6
Aug 23	73.2	61.5	89.8
Aug 24	71.0	56.0	92.4
Aug 25	71.0	54.5	92.4
Aug 26	74.6	58.9	95.9
Aug 27	78.3	66.8	95.8
Aug 28	76.9	64.4	98.6
Aug 29	77.6	62.3	101.4
Aug 30	78.9	64.9	100.1
Summary	76.2	71.0	81.0

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 64

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	73.0	60.9	89.7
Aug 2	78.0	69.5	105.1
Aug 3	78.6	67.5	99.6
Aug 4	75.4	65.3	100.0
Aug 5	78.7	64.5	104.0
Aug 6	80.1	66.2	100.6
Aug 7	79.7	67.4	104.4
Aug 8	74.9	64.6	99.7
Aug 9	78.3	65.3	103.3
Aug 10	77.5	65.1	97.1
Aug 11	75.6	66.1	101.6
Aug 12	75.1	65.7	92.5
Aug 13	75.3	64.8	102.6
Aug 14	81.0	67.8	104.1
Aug 15	77.1	68.1	100.7
Aug 16	82.6	67.1	106.3
Aug 17	76.2	65.7	101.8
Aug 18	80.8	69.0	102.2
Aug 19	79.7	65.1	104.0
Aug 20	76.5	64.8	97.4
Aug 21	75.6	66.1	100.2
Aug 22	78.6	65.2	101.2
Aug 23	74.2	60.6	95.3
Aug 24	71.8	55.3	98.7
Aug 25	72.5	53.5	100.0
Aug 26	75.4	57.9	101.8
Aug 27	79.4	66.5	101.0
Aug 28	77.9	64.0	108.5
Aug 29	78.6	61.5	105.1
Aug 30	80.2	63.9	107.1
Summary	77.3	71.8	82.6

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 65

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	109.7	105.0	116.3
Aug 2	110.7	107.0	118.3
Aug 3	110.6	107.5	117.0
Aug 4	105.7	26.6	123.1
Aug 5	105.4	95.9	117.7
Aug 6	110.3	104.1	116.8
Aug 7	112.0	105.8	119.4
Aug 8	112.3	108.4	118.3
Aug 9	119.9	112.9	126.0
Aug 10	131.6	126.5	135.7
Aug 11	129.5	121.1	133.4
Aug 12	128.4	125.6	130.8
Aug 13	126.7	123.4	128.9
Aug 14	126.6	123.3	130.1
Aug 15	119.6	72.2	132.0
Aug 16	128.9	126.6	131.5
Aug 17	126.4	116.4	132.6
Aug 18	125.7	122.6	128.6
Aug 19	126.7	123.9	130.8
Aug 20	124.7	120.9	128.1
Aug 21	123.5	113.3	130.2
Aug 22	124.5	101.9	129.6
Aug 23	123.7	119.8	127.7
Aug 24	121.2	116.0	126.4
Aug 25	121.2	115.3	128.1
Aug 26	123.2	115.7	128.8
Aug 27	125.6	120.6	130.9
Aug 28	125.2	121.3	128.7
Aug 29	124.6	119.0	130.4
Aug 30	109.6	71.1	130.5
Summary	120.5	105.4	131.6

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 66

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	175.2	170.2	176.6
Aug 2	174.3	167.8	175.4
Aug 3	179.7	173.2	187.4
Aug 4	185.9	179.2	188.5
Aug 5	173.7	153.9	179.5
Aug 6	174.9	170.1	176.3
Aug 7	173.1	160.7	174.9
Aug 8	172.2	171.2	172.9
Aug 9	171.6	169.7	172.8
Aug 10	181.3	152.6	193.6
Aug 11	193.7	193.2	195.3
Aug 12	193.9	193.5	194.1
Aug 13	193.8	193.4	194.2
Aug 14	194.0	193.7	194.4
Aug 15	190.2	183.8	196.7
Aug 16	189.9	189.3	190.7
Aug 17	189.5	142.7	194.2
Aug 18	194.0	193.7	194.4
Aug 19	194.0	192.1	194.7
Aug 20	181.2	177.6	188.0
Aug 21	176.8	174.4	178.3
Aug 22	175.1	157.1	176.9
Aug 23	173.9	172.9	174.7
Aug 24	172.9	172.1	174.1
Aug 25	172.4	171.0	173.7
Aug 26	182.7	170.1	191.9
Aug 27	191.1	190.5	191.7
Aug 28	189.7	188.2	190.9
Aug 29	182.4	171.6	188.8
Aug 30	171.9	165.9	174.5
Summary	182.2	171.6	194.0

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 67

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	189.8	188.3	190.4
Aug 2	189.8	189.2	190.3
Aug 3	189.3	188.3	190.0
Aug 4	188.3	187.2	189.2
Aug 5	183.9	152.4	190.9
Aug 6	188.1	187.5	189.1
Aug 7	187.7	185.9	188.4
Aug 8	187.5	187.0	187.9
Aug 9	187.4	186.3	188.4
Aug 10	187.3	186.6	187.8
Aug 11	186.2	177.3	188.9
Aug 12	186.8	185.0	187.7
Aug 13	186.5	184.6	187.8
Aug 14	186.4	185.2	187.4
Aug 15	180.4	132.8	188.5
Aug 16	186.9	185.7	187.7
Aug 17	185.9	176.9	187.2
Aug 18	186.1	185.4	187.2
Aug 19	178.3	83.6	196.5
Aug 20	196.3	195.5	196.7
Aug 21	196.8	196.2	197.1
Aug 22	197.1	196.7	198.7
Aug 23	197.2	196.9	197.4
Aug 24	197.3	197.1	197.6
Aug 25	197.5	197.0	198.0
Aug 26	197.7	197.4	197.9
Aug 27	197.8	197.5	198.0
Aug 28	197.8	197.7	198.0
Aug 29	196.4	191.3	197.9
Aug 30	190.2	186.5	191.3
Summary	190.2	178.3	197.8

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 68

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	168.3	166.6	170.2
Aug 2	165.7	164.0	166.7
Aug 3	166.2	163.5	174.1
Aug 4	169.8	161.4	175.1
Aug 5	167.0	96.0	181.5
Aug 6	167.5	163.7	174.3
Aug 7	153.5	71.2	173.5
Aug 8	135.3	100.0	172.7
Aug 9	141.8	103.5	167.7
Aug 10	161.2	126.3	178.7
Aug 11	136.7	66.4	168.9
Aug 12	137.8	69.5	171.8
Aug 13	158.7	152.3	163.8
Aug 14	159.2	157.5	163.7
Aug 15	149.7	80.8	165.7
Aug 16	155.4	154.7	156.1
Aug 17	156.1	153.3	161.9
Aug 18	155.6	151.3	162.7
Aug 19	156.1	148.6	162.2
Aug 20	154.4	148.7	163.5
Aug 21	149.6	145.9	160.4
Aug 22	142.3	97.1	148.4
Aug 23	142.7	140.2	143.8
Aug 24	144.6	138.8	157.6
Aug 25	142.3	135.9	153.1
Aug 26	146.8	118.4	161.6
Aug 27	152.3	149.9	153.7
Aug 28	150.2	149.1	151.0
Aug 29	149.5	148.7	150.6
Aug 30	132.9	97.7	150.2
Summary	152.3	132.9	169.8

Solid Waste Permit 588 Daily Wellhead Temperature
Averages for Well 69
 Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	106.0	103.3	110.9
Aug 2	107.0	104.7	112.8
Aug 3	107.0	104.5	111.7
Aug 4	106.2	103.0	113.4
Aug 5	104.8	99.7	111.3
Aug 6	107.1	102.8	112.5
Aug 7	107.1	103.0	113.8
Aug 8	105.4	102.4	111.3
Aug 9	105.8	101.1	113.9
Aug 10	105.3	100.7	112.3
Aug 11	103.0	96.6	110.2
Aug 12	100.8	97.0	106.5
Aug 13	100.6	95.6	109.3
Aug 14	102.8	98.0	111.0
Aug 15	96.4	70.0	108.6
Aug 16	102.2	96.0	111.5
Aug 17	98.6	91.3	109.6
Aug 18	99.7	95.0	108.1
Aug 19	98.6	92.7	107.8
Aug 20	97.1	92.2	106.1
Aug 21	95.2	88.9	104.2
Aug 22	95.9	90.5	107.2
Aug 23	94.9	87.7	105.3
Aug 24	92.9	83.6	105.9
Aug 25	93.1	82.8	106.8
Aug 26	94.6	84.7	109.3
Aug 27	96.2	89.1	107.9
Aug 28	95.2	87.4	106.7
Aug 29	95.6	86.1	111.4
Aug 30	92.0	70.4	110.8
Summary	100.2	92.0	107.1

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 70

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	73.9	61.2	91.9
Aug 2	79.4	69.8	103.0
Aug 3	79.4	68.0	99.8
Aug 4	77.0	65.4	107.0
Aug 5	80.8	64.7	109.2
Aug 6	80.7	66.6	101.6
Aug 7	82.1	68.2	106.2
Aug 8	76.6	65.5	101.5
Aug 9	80.2	65.7	107.6
Aug 10	79.6	65.2	99.1
Aug 11	78.2	67.2	101.7
Aug 12	75.2	66.7	92.3
Aug 13	76.2	65.4	98.7
Aug 14	82.5	68.1	106.8
Aug 15	79.2	68.4	107.7
Aug 16	84.6	67.8	111.0
Aug 17	77.4	66.5	108.9
Aug 18	82.3	70.0	106.0
Aug 19	81.5	65.5	107.2
Aug 20	78.5	65.8	104.0
Aug 21	76.6	66.6	98.9
Aug 22	81.1	65.8	107.5
Aug 23	76.7	61.7	103.0
Aug 24	74.0	56.0	102.3
Aug 25	75.0	53.9	106.8
Aug 26	77.7	58.1	107.0
Aug 27	80.8	66.7	104.3
Aug 28	80.0	64.1	105.0
Aug 29	80.8	62.0	113.9
Aug 30	82.5	64.5	114.4
Summary	79.0	73.9	84.6

Solid Waste Permit 588 Daily Wellhead Temperature
Averages for Well 71
 Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	140.0	139.2	140.4
Aug 2	140.1	138.8	140.6
Aug 3	140.1	139.8	140.5
Aug 4	140.0	139.3	140.8
Aug 5	136.9	113.7	140.5
Aug 6	140.3	139.7	140.7
Aug 7	140.2	139.0	140.8
Aug 8	140.1	139.8	140.6
Aug 9	140.2	139.5	140.6
Aug 10	140.1	139.8	140.7
Aug 11	139.8	137.5	140.4
Aug 12	139.7	139.2	140.3
Aug 13	139.8	138.6	140.5
Aug 14	140.1	139.5	140.6
Aug 15	135.7	101.5	140.5
Aug 16	140.2	139.7	140.8
Aug 17	139.1	134.8	140.4
Aug 18	139.2	138.5	140.1
Aug 19	139.3	138.7	140.1
Aug 20	139.3	138.0	140.1
Aug 21	139.3	138.0	140.5
Aug 22	137.7	114.1	140.1
Aug 23	139.4	139.1	140.1
Aug 24	139.3	138.8	140.0
Aug 25	139.3	138.2	140.5
Aug 26	139.5	138.8	140.4
Aug 27	139.7	139.2	140.4
Aug 28	139.5	138.6	140.4
Aug 29	139.7	138.8	140.7
Aug 30	127.1	96.4	140.5
Summary	139.0	127.1	140.3

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 72

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	140.1	139.1	140.9
Aug 2	140.3	139.9	141.5
Aug 3	140.3	139.7	141.2
Aug 4	140.6	139.8	141.6
Aug 5	135.6	103.0	142.6
Aug 6	141.2	140.4	142.4
Aug 7	141.2	140.2	142.3
Aug 8	140.9	140.2	141.9
Aug 9	141.2	140.3	142.5
Aug 10	141.3	140.5	142.2
Aug 11	139.4	111.9	142.2
Aug 12	140.9	139.6	141.8
Aug 13	141.0	139.8	142.3
Aug 14	141.6	140.9	142.7
Aug 15	135.0	94.7	142.8
Aug 16	141.6	140.9	142.7
Aug 17	140.4	131.9	142.5
Aug 18	140.6	139.4	141.4
Aug 19	141.1	140.1	142.1
Aug 20	140.8	140.2	142.0
Aug 21	140.7	136.9	141.7
Aug 22	139.5	106.5	141.9
Aug 23	140.4	139.9	141.2
Aug 24	140.4	139.6	141.4
Aug 25	140.8	139.9	142.3
Aug 26	139.8	112.0	142.0
Aug 27	140.9	140.4	141.7
Aug 28	141.2	140.5	142.3
Aug 29	141.9	140.9	142.8
Aug 30	132.4	102.2	143.4
Summary	140.1	132.4	141.9

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 73

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	118.9	118.2	119.5
Aug 2	119.1	118.6	120.1
Aug 3	118.8	117.6	119.9
Aug 4	118.1	117.6	119.8
Aug 5	115.1	99.4	119.0
Aug 6	118.5	117.7	119.4
Aug 7	118.8	118.1	120.1
Aug 8	118.6	118.2	119.7
Aug 9	118.9	118.2	120.2
Aug 10	119.0	118.3	119.8
Aug 11	118.8	118.0	120.1
Aug 12	118.7	118.1	119.5
Aug 13	118.8	117.8	120.0
Aug 14	119.2	118.6	120.1
Aug 15	115.0	80.5	120.1
Aug 16	119.5	118.8	120.5
Aug 17	116.7	111.0	120.1
Aug 18	113.8	112.6	115.8
Aug 19	113.8	112.4	115.6
Aug 20	113.5	111.9	114.9
Aug 21	113.2	111.4	115.2
Aug 22	112.3	97.7	115.4
Aug 23	113.0	112.0	114.8
Aug 24	112.8	111.5	114.8
Aug 25	113.1	111.4	115.7
Aug 26	113.4	109.9	115.6
Aug 27	113.9	112.6	115.9
Aug 28	113.8	112.4	116.2
Aug 29	114.1	112.7	116.2
Aug 30	106.1	76.4	116.6
Summary	115.9	106.1	119.5

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 74

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	117.3	114.0	119.0
Aug 2	117.9	115.4	120.2
Aug 3	115.7	113.4	117.1
Aug 4	114.0	109.8	118.1
Aug 5	113.1	97.2	119.4
Aug 6	116.2	114.1	118.3
Aug 7	116.1	112.8	118.8
Aug 8	115.8	114.4	117.8
Aug 9	116.2	113.6	119.5
Aug 10	116.4	114.6	118.5
Aug 11	116.1	109.6	118.9
Aug 12	116.1	113.6	119.4
Aug 13	115.6	111.4	118.7
Aug 14	116.5	114.5	119.6
Aug 15	112.7	77.7	119.6
Aug 16	118.4	116.3	121.3
Aug 17	116.7	107.8	120.3
Aug 18	117.8	116.1	120.3
Aug 19	117.9	116.2	120.3
Aug 20	117.7	113.8	119.6
Aug 21	117.3	112.9	120.8
Aug 22	117.5	109.7	120.3
Aug 23	117.9	116.4	119.7
Aug 24	117.1	115.2	119.5
Aug 25	117.1	114.0	120.5
Aug 26	117.9	115.6	120.6
Aug 27	119.1	117.0	121.8
Aug 28	118.4	116.2	121.4
Aug 29	118.3	116.2	121.0
Aug 30	108.0	75.0	120.0
Summary	116.4	108.0	119.1

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 75

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	75.0	63.9	92.1
Aug 2	79.8	70.8	103.0
Aug 3	78.8	69.2	94.3
Aug 4	77.8	67.7	103.2
Aug 5	80.9	65.8	101.5
Aug 6	82.9	67.9	102.9
Aug 7	82.5	69.8	104.4
Aug 8	77.2	66.4	100.5
Aug 9	80.0	66.9	103.1
Aug 10	79.3	65.9	98.0
Aug 11	78.0	67.2	101.1
Aug 12	75.2	67.0	89.0
Aug 13	75.9	66.2	95.7
Aug 14	81.9	69.3	104.4
Aug 15	79.3	69.2	102.5
Aug 16	84.6	68.7	107.7
Aug 17	78.2	67.4	106.4
Aug 18	81.4	70.0	99.8
Aug 19	81.3	66.8	105.1
Aug 20	79.0	67.3	100.0
Aug 21	76.5	67.2	94.7
Aug 22	80.2	66.9	104.4
Aug 23	77.6	63.0	98.2
Aug 24	75.3	57.6	100.3
Aug 25	75.9	56.7	101.7
Aug 26	79.1	60.9	106.2
Aug 27	81.9	68.3	102.7
Aug 28	80.4	65.7	104.2
Aug 29	81.4	64.6	103.9
Aug 30	83.8	66.6	106.5
Summary	79.4	75.0	84.6

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 76

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	131.5	131.2	131.8
Aug 2	131.7	131.5	131.9
Aug 3	131.7	131.5	132.1
Aug 4	132.0	131.7	132.4
Aug 5	128.6	108.4	132.5
Aug 6	132.2	131.8	132.5
Aug 7	132.4	132.2	132.7
Aug 8	132.5	132.3	132.8
Aug 9	132.7	132.4	133.2
Aug 10	132.7	132.5	132.9
Aug 11	132.1	119.8	132.8
Aug 12	132.5	132.3	132.7
Aug 13	132.5	132.3	132.8
Aug 14	132.6	132.3	132.9
Aug 15	129.6	101.1	132.8
Aug 16	132.5	132.3	132.8
Aug 17	132.4	132.0	132.8
Aug 18	132.3	132.0	132.5
Aug 19	132.3	132.0	132.6
Aug 20	132.3	132.0	132.6
Aug 21	132.3	132.2	132.6
Aug 22	131.2	105.7	132.7
Aug 23	132.3	132.1	132.6
Aug 24	132.5	132.3	132.8
Aug 25	132.7	132.4	133.0
Aug 26	132.9	132.4	133.2
Aug 27	133.1	132.9	133.4
Aug 28	133.4	133.1	133.8
Aug 29	133.7	133.4	134.1
Aug 30	128.1	114.6	134.2
Summary	132.0	128.1	133.7

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 77

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	74.9	63.6	91.9
Aug 2	79.7	71.0	98.2
Aug 3	78.8	69.2	93.9
Aug 4	78.2	67.5	104.2
Aug 5	81.3	66.0	101.9
Aug 6	82.4	68.0	100.1
Aug 7	82.2	69.9	103.5
Aug 8	77.1	66.9	98.1
Aug 9	79.7	67.2	101.4
Aug 10	79.2	66.3	96.4
Aug 11	77.9	67.3	98.6
Aug 12	75.1	67.2	89.9
Aug 13	76.0	66.4	95.0
Aug 14	81.8	69.3	100.3
Aug 15	79.5	69.6	101.1
Aug 16	85.6	69.0	103.0
Aug 17	78.0	67.7	104.1
Aug 18	80.6	70.2	94.5
Aug 19	81.0	67.2	100.0
Aug 20	78.4	67.3	95.2
Aug 21	76.3	67.7	93.8
Aug 22	80.2	67.1	100.7
Aug 23	77.1	63.3	94.2
Aug 24	74.8	58.2	95.5
Aug 25	76.0	56.8	98.8
Aug 26	78.4	60.7	101.1
Aug 27	81.9	68.4	99.6
Aug 28	80.6	66.0	102.1
Aug 29	81.6	64.2	106.4
Aug 30	83.6	66.7	108.3
Summary	79.3	74.8	85.6

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 78

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	111.9	110.7	113.2
Aug 2	112.0	111.1	113.7
Aug 3	112.0	110.8	113.6
Aug 4	111.1	105.0	114.2
Aug 5	108.5	93.1	115.6
Aug 6	113.7	112.5	115.2
Aug 7	113.8	112.4	115.3
Aug 8	113.0	112.4	114.7
Aug 9	111.7	109.5	113.5
Aug 10	110.4	109.6	111.5
Aug 11	109.2	101.8	111.8
Aug 12	108.2	107.2	109.4
Aug 13	110.2	105.7	114.5
Aug 14	112.2	109.4	114.7
Aug 15	109.5	78.3	115.2
Aug 16	113.9	113.0	115.4
Aug 17	112.9	111.0	115.5
Aug 18	112.2	110.8	113.7
Aug 19	112.6	111.7	113.9
Aug 20	112.5	111.5	113.7
Aug 21	112.5	110.5	114.1
Aug 22	112.3	102.8	114.9
Aug 23	112.5	111.3	114.3
Aug 24	112.3	111.3	114.2
Aug 25	112.4	110.7	114.8
Aug 26	112.4	110.3	114.7
Aug 27	112.9	111.6	115.0
Aug 28	112.9	111.0	115.7
Aug 29	113.3	111.8	115.8
Aug 30	108.9	99.7	115.6
Summary	111.8	108.2	113.9

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 79

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	75.2	64.3	90.9
Aug 2	79.4	71.0	100.0
Aug 3	79.7	69.8	95.1
Aug 4	77.5	67.7	98.9
Aug 5	80.7	66.3	103.8
Aug 6	82.3	68.4	101.7
Aug 7	82.2	70.2	100.0
Aug 8	77.0	66.9	94.2
Aug 9	79.8	67.2	105.7
Aug 10	79.5	66.5	98.1
Aug 11	77.7	66.9	99.7
Aug 12	74.9	67.2	92.1
Aug 13	76.2	66.4	97.1
Aug 14	82.2	69.4	105.3
Aug 15	79.0	69.7	98.9
Aug 16	84.9	69.1	107.1
Aug 17	77.9	67.9	102.0
Aug 18	81.3	70.2	97.8
Aug 19	81.0	67.2	103.5
Aug 20	78.8	67.5	99.6
Aug 21	77.1	67.2	101.5
Aug 22	80.2	67.0	101.0
Aug 23	77.5	63.4	96.1
Aug 24	75.3	58.6	98.0
Aug 25	76.2	57.3	102.7
Aug 26	78.9	61.2	102.0
Aug 27	82.4	68.8	105.6
Aug 28	80.6	66.3	100.0
Aug 29	82.0	65.1	105.2
Aug 30	83.7	67.4	104.7
Summary	79.4	74.9	84.9

Solid Waste Permit 588 Daily Wellhead Temperature
Averages for Well 80
 Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	73.6	61.7	91.9
Aug 2	79.0	70.0	104.0
Aug 3	78.4	68.2	97.3
Aug 4	77.3	66.2	103.6
Aug 5	81.2	65.2	106.8
Aug 6	81.2	67.0	100.3
Aug 7	80.9	68.4	104.1
Aug 8	76.4	65.4	99.4
Aug 9	79.6	65.9	104.2
Aug 10	78.3	65.4	95.7
Aug 11	77.2	66.9	100.0
Aug 12	74.5	66.7	87.5
Aug 13	75.7	65.5	96.3
Aug 14	82.5	68.6	104.3
Aug 15	79.3	68.8	100.9
Aug 16	83.8	68.0	105.3
Aug 17	77.7	66.5	103.3
Aug 18	80.6	69.9	99.6
Aug 19	79.8	66.2	101.3
Aug 20	77.6	66.2	98.8
Aug 21	75.7	67.0	97.4
Aug 22	79.8	66.1	102.7
Aug 23	75.9	61.7	96.4
Aug 24	73.7	56.2	96.6
Aug 25	74.3	54.9	99.0
Aug 26	78.3	59.3	101.3
Aug 27	80.0	67.0	99.5
Aug 28	80.3	64.8	104.3
Aug 29	80.4	62.6	105.4
Aug 30	82.3	65.0	108.0
Summary	78.5	73.6	83.8

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 81

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	169.9	166.6	171.9
Aug 2	170.8	169.2	171.5
Aug 3	170.1	168.5	171.0
Aug 4	169.7	165.9	171.2
Aug 5	160.4	106.7	176.8
Aug 6	170.5	169.7	171.8
Aug 7	169.9	167.8	170.8
Aug 8	170.0	169.2	171.0
Aug 9	170.2	165.3	172.1
Aug 10	170.2	169.2	171.4
Aug 11	169.2	140.5	173.5
Aug 12	170.1	168.9	171.5
Aug 13	170.0	168.3	171.5
Aug 14	170.2	169.1	171.2
Aug 15	161.9	87.4	176.6
Aug 16	171.6	169.8	172.7
Aug 17	169.4	151.4	171.8
Aug 18	169.4	167.7	171.2
Aug 19	170.9	169.8	172.2
Aug 20	171.1	168.8	171.9
Aug 21	170.8	164.8	172.2
Aug 22	170.0	129.9	175.8
Aug 23	170.9	170.1	171.7
Aug 24	170.7	169.8	171.5
Aug 25	171.0	170.0	172.7
Aug 26	171.5	170.3	173.2
Aug 27	172.0	171.2	173.0
Aug 28	171.6	170.4	172.5
Aug 29	171.6	170.7	172.5
Aug 30	145.2	82.9	172.4
Summary	169.0	145.2	172.0

Solid Waste Permit 588 Daily Wellhead Temperature
Averages for Well 82
 Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	167.2	164.0	168.5
Aug 2	167.4	165.6	168.7
Aug 3	167.0	165.9	168.2
Aug 4	166.7	164.5	168.3
Aug 5	164.0	149.4	169.6
Aug 6	167.0	165.7	168.0
Aug 7	166.6	165.3	167.6
Aug 8	166.2	164.3	166.8
Aug 9	166.0	162.9	167.7
Aug 10	166.1	164.5	167.2
Aug 11	165.3	148.0	167.9
Aug 12	165.8	164.2	167.4
Aug 13	164.9	162.9	166.3
Aug 14	164.1	162.3	165.2
Aug 15	161.4	138.7	168.8
Aug 16	165.2	163.6	166.2
Aug 17	163.8	144.9	166.4
Aug 18	165.3	164.4	165.9
Aug 19	165.0	163.9	165.9
Aug 20	164.3	161.4	165.5
Aug 21	163.9	161.4	165.9
Aug 22	163.2	143.9	165.6
Aug 23	163.9	162.6	164.7
Aug 24	163.7	162.1	164.8
Aug 25	164.1	162.9	166.1
Aug 26	164.2	162.8	165.7
Aug 27	165.0	164.0	166.9
Aug 28	164.7	164.0	165.9
Aug 29	164.6	163.8	166.4
Aug 30	160.2	149.8	165.1
Summary	164.9	160.2	167.4

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 83

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	139.6	123.1	147.2
Aug 2	141.5	132.2	147.6
Aug 3	140.5	133.6	147.7
Aug 4	140.0	124.6	149.7
Aug 5	134.7	104.3	151.6
Aug 6	142.1	135.9	150.2
Aug 7	141.3	125.8	146.7
Aug 8	138.8	133.1	144.7
Aug 9	139.3	121.6	148.0
Aug 10	140.4	134.8	146.4
Aug 11	136.3	109.7	143.9
Aug 12	137.0	129.1	145.1
Aug 13	139.4	128.6	150.0
Aug 14	142.6	132.2	150.2
Aug 15	129.4	82.0	147.1
Aug 16	142.9	138.7	147.9
Aug 17	137.7	100.4	149.0
Aug 18	141.6	134.4	147.2
Aug 19	144.1	138.0	150.4
Aug 20	143.9	134.8	149.3
Aug 21	142.2	122.0	151.3
Aug 22	143.1	119.5	149.4
Aug 23	143.2	138.5	148.3
Aug 24	141.5	137.1	148.1
Aug 25	142.9	136.1	150.9
Aug 26	143.9	135.6	149.0
Aug 27	145.5	139.1	153.4
Aug 28	143.4	137.8	151.3
Aug 29	143.9	138.6	150.2
Aug 30	127.1	77.6	151.5
Summary	140.3	127.1	145.5

Solid Waste Permit 588 Daily Wellhead Temperature
Averages for Well 84
 Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	156.9	156.2	157.4
Aug 2	157.1	156.8	157.8
Aug 3	156.9	156.4	157.4
Aug 4	156.5	155.8	157.1
Aug 5	153.3	123.9	162.1
Aug 6	156.6	156.0	157.2
Aug 7	156.4	156.0	157.0
Aug 8	156.3	155.9	156.8
Aug 9	156.4	155.8	157.1
Aug 10	156.3	155.8	156.7
Aug 11	155.2	130.0	158.2
Aug 12	156.3	155.8	156.8
Aug 13	156.1	155.5	156.9
Aug 14	156.2	155.8	156.9
Aug 15	153.4	121.5	162.0
Aug 16	156.6	156.0	157.2
Aug 17	156.2	155.3	157.1
Aug 18	156.1	155.7	156.7
Aug 19	156.3	155.8	157.0
Aug 20	156.2	155.8	156.7
Aug 21	156.2	155.6	156.8
Aug 22	155.7	135.2	159.1
Aug 23	156.3	156.0	156.7
Aug 24	156.3	155.8	156.8
Aug 25	156.3	155.7	157.0
Aug 26	156.6	155.9	157.2
Aug 27	156.8	156.2	157.6
Aug 28	156.6	156.2	157.4
Aug 29	156.6	156.0	157.3
Aug 30	152.1	137.0	157.3
Summary	156.0	152.1	157.1

Solid Waste Permit 588 Daily Wellhead Temperature
Averages for Well 85
 Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	140.4	138.4	142.5
Aug 2	141.0	139.6	143.6
Aug 3	140.6	139.1	143.0
Aug 4	139.7	138.1	142.9
Aug 5	133.2	96.6	144.0
Aug 6	140.1	138.4	143.2
Aug 7	139.4	136.9	141.7
Aug 8	138.7	137.2	140.9
Aug 9	138.7	136.3	142.8
Aug 10	138.1	136.7	140.2
Aug 11	136.4	123.1	140.8
Aug 12	137.4	135.1	140.3
Aug 13	138.1	133.8	142.0
Aug 14	137.9	135.3	140.7
Aug 15	125.8	77.6	140.4
Aug 16	137.9	136.3	140.1
Aug 17	136.2	129.6	140.0
Aug 18	137.7	130.8	141.8
Aug 19	141.3	140.1	143.8
Aug 20	140.9	137.4	144.1
Aug 21	140.9	135.2	144.4
Aug 22	139.1	110.7	144.3
Aug 23	137.0	135.3	138.7
Aug 24	135.6	133.9	138.5
Aug 25	135.7	132.3	139.9
Aug 26	134.7	116.0	139.1
Aug 27	136.3	133.8	139.5
Aug 28	135.3	132.7	138.2
Aug 29	135.1	132.8	139.0
Aug 30	121.1	79.7	138.1
Summary	137.0	121.1	141.3

Solid Waste Permit 588 Daily Wellhead Temperature
Averages for Well 86
 Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	149.7	149.1	150.2
Aug 2	150.0	149.7	150.7
Aug 3	149.9	149.5	150.4
Aug 4	149.8	149.5	150.7
Aug 5	145.7	112.2	154.8
Aug 6	150.1	149.7	150.6
Aug 7	150.0	149.6	150.5
Aug 8	150.0	149.6	150.3
Aug 9	150.1	149.8	150.8
Aug 10	150.2	149.8	150.8
Aug 11	150.4	149.6	152.0
Aug 12	150.4	149.8	150.7
Aug 13	150.4	150.0	151.0
Aug 14	150.6	150.2	151.1
Aug 15	145.5	99.4	154.3
Aug 16	150.9	150.5	151.5
Aug 17	150.9	150.5	151.5
Aug 18	151.0	150.7	151.4
Aug 19	151.0	150.6	151.5
Aug 20	151.1	150.6	151.5
Aug 21	151.2	150.7	151.8
Aug 22	149.0	120.0	152.5
Aug 23	151.5	151.1	151.9
Aug 24	151.5	151.2	151.8
Aug 25	151.6	151.1	152.2
Aug 26	150.1	111.8	152.3
Aug 27	152.0	151.3	152.6
Aug 28	151.9	151.4	152.4
Aug 29	151.9	151.4	152.5
Aug 30	145.2	122.1	152.7
Summary	150.1	145.2	152.0

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 87

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	104.4	95.3	117.2
Aug 2	108.3	102.0	119.5
Aug 3	107.2	102.8	117.0
Aug 4	104.9	94.0	118.8
Aug 5	106.7	96.8	119.7
Aug 6	106.6	98.1	119.3
Aug 7	105.0	94.0	118.2
Aug 8	101.7	95.2	109.7
Aug 9	103.9	93.6	117.1
Aug 10	103.6	95.9	113.4
Aug 11	100.6	81.6	111.4
Aug 12	98.0	88.4	111.7
Aug 13	98.6	87.0	114.1
Aug 14	102.9	94.2	115.9
Aug 15	99.8	88.9	112.0
Aug 16	105.1	95.1	116.3
Aug 17	98.1	82.3	115.0
Aug 18	100.8	93.1	112.3
Aug 19	101.7	92.3	115.0
Aug 20	99.2	92.2	108.0
Aug 21	98.4	85.2	110.8
Aug 22	102.1	94.3	112.2
Aug 23	100.0	92.8	109.2
Aug 24	98.5	87.1	111.1
Aug 25	100.2	87.1	117.9
Aug 26	102.1	90.0	114.3
Aug 27	106.0	96.2	120.7
Aug 28	105.4	95.8	118.1
Aug 29	106.1	94.6	119.6
Aug 30	106.6	94.7	119.5
Summary	102.7	98.0	108.3

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 88

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	161.9	161.4	162.5
Aug 2	161.9	161.4	162.7
Aug 3	161.5	160.7	161.9
Aug 4	161.2	160.5	162.3
Aug 5	159.4	119.1	165.3
Aug 6	160.9	160.3	161.5
Aug 7	160.8	160.1	161.5
Aug 8	160.8	160.5	161.3
Aug 9	160.9	160.4	161.8
Aug 10	160.8	160.4	161.5
Aug 11	159.5	126.2	162.3
Aug 12	161.1	160.4	161.7
Aug 13	160.9	160.3	161.5
Aug 14	160.6	160.2	161.2
Aug 15	155.9	108.9	163.6
Aug 16	160.9	160.3	161.6
Aug 17	160.9	160.3	161.5
Aug 18	160.6	160.2	161.3
Aug 19	160.7	160.2	161.3
Aug 20	160.6	159.6	161.0
Aug 21	160.6	160.2	161.2
Aug 22	159.6	132.4	163.2
Aug 23	160.5	160.1	161.0
Aug 24	160.7	160.1	161.0
Aug 25	160.7	160.2	161.1
Aug 26	160.5	155.5	161.1
Aug 27	160.7	160.1	161.4
Aug 28	160.7	160.2	161.3
Aug 29	160.6	160.0	161.3
Aug 30	160.0	128.1	164.6
Summary	160.5	155.9	161.9

Solid Waste Permit 588 Daily Wellhead Temperature
Averages for Well 89
 Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	187.8	180.7	189.4
Aug 2	188.1	184.2	188.8
Aug 3	188.3	187.1	189.9
Aug 4	187.1	170.5	190.8
Aug 5	186.4	174.3	191.2
Aug 6	187.6	185.8	189.3
Aug 7	187.3	183.9	188.3
Aug 8	187.2	185.0	188.0
Aug 9	187.5	182.6	189.1
Aug 10	187.2	185.4	188.4
Aug 11	186.5	173.5	189.0
Aug 12	187.3	185.3	189.0
Aug 13	187.7	183.5	189.7
Aug 14	187.6	185.4	189.0
Aug 15	186.1	172.8	190.0
Aug 16	188.2	187.1	189.3
Aug 17	186.5	152.6	189.7
Aug 18	188.1	187.2	189.3
Aug 19	188.3	187.6	189.1
Aug 20	187.9	185.0	189.2
Aug 21	187.2	169.2	189.5
Aug 22	187.5	174.7	189.1
Aug 23	187.4	185.9	188.1
Aug 24	187.1	186.4	188.0
Aug 25	187.2	185.9	188.7
Aug 26	186.8	179.5	188.3
Aug 27	187.5	185.0	188.6
Aug 28	187.1	186.0	188.3
Aug 29	187.1	185.9	188.6
Aug 30	183.6	174.0	188.8
Summary	187.2	183.6	188.3

Solid Waste Permit 588 Daily Wellhead Temperature
Averages for Well 90
 Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	133.6	133.1	134.0
Aug 2	133.8	133.6	134.3
Aug 3	133.9	133.5	134.4
Aug 4	134.0	133.6	134.5
Aug 5	129.6	105.5	135.4
Aug 6	134.2	133.9	134.5
Aug 7	134.4	134.0	134.9
Aug 8	134.5	134.1	134.9
Aug 9	134.6	134.2	135.2
Aug 10	134.6	134.3	134.9
Aug 11	134.7	134.1	135.2
Aug 12	134.6	134.3	134.9
Aug 13	134.5	134.2	135.1
Aug 14	134.8	134.4	135.2
Aug 15	128.9	83.1	135.3
Aug 16	134.9	134.5	135.4
Aug 17	134.7	134.1	135.2
Aug 18	134.6	134.4	134.9
Aug 19	134.7	134.5	135.2
Aug 20	134.9	134.5	135.3
Aug 21	135.0	134.6	135.5
Aug 22	134.3	121.0	135.7
Aug 23	135.4	135.1	135.8
Aug 24	135.6	135.3	136.0
Aug 25	135.8	135.4	136.5
Aug 26	135.9	135.5	136.4
Aug 27	136.0	135.7	136.6
Aug 28	136.0	135.6	136.6
Aug 29	135.9	135.6	136.3
Aug 30	121.8	85.3	136.4
Summary	134.0	121.8	136.0

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 91

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	163.0	160.2	164.1
Aug 2	162.9	162.3	163.7
Aug 3	161.8	160.4	162.7
Aug 4	160.2	158.7	160.9
Aug 5	160.6	136.0	169.9
Aug 6	160.0	159.0	160.6
Aug 7	159.5	158.3	160.0
Aug 8	159.1	158.8	159.6
Aug 9	158.9	157.4	160.1
Aug 10	158.4	157.6	158.9
Aug 11	157.5	148.4	161.4
Aug 12	157.7	155.4	158.5
Aug 13	157.2	155.0	158.1
Aug 14	157.1	156.2	157.8
Aug 15	120.2	74.0	159.3
Aug 16	107.1	70.7	163.2
Aug 17	141.8	78.8	185.1
Aug 18	158.8	157.5	160.5
Aug 19	157.4	156.4	158.0
Aug 20	156.3	155.4	157.2
Aug 21	155.7	152.2	157.0
Aug 22	155.4	131.5	158.9
Aug 23	155.6	154.9	156.4
Aug 24	155.5	155.2	156.0
Aug 25	155.7	154.1	157.0
Aug 26	155.8	144.8	157.4
Aug 27	156.8	155.8	157.8
Aug 28	156.6	155.7	157.4
Aug 29	156.5	155.7	157.5
Aug 30	157.3	125.2	163.0
Summary	154.5	107.1	163.0

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 92

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	126.8	90.7	144.3
Aug 2	133.6	106.0	142.1
Aug 3	133.0	124.4	143.9
Aug 4	128.8	106.6	141.1
Aug 5	130.2	116.8	143.5
Aug 6	130.0	119.8	138.6
Aug 7	125.6	99.7	133.8
Aug 8	121.1	114.3	126.0
Aug 9	123.7	103.4	137.7
Aug 10	120.4	113.9	126.9
Aug 11	115.9	87.8	128.9
Aug 12	111.0	96.8	128.0
Aug 13	116.0	90.3	133.7
Aug 14	118.1	100.8	130.4
Aug 15	113.2	101.3	121.1
Aug 16	118.3	111.5	123.9
Aug 17	107.5	78.3	123.8
Aug 18	109.0	98.3	117.9
Aug 19	112.2	106.5	121.0
Aug 20	109.5	90.3	120.0
Aug 21	108.4	83.5	125.6
Aug 22	111.3	100.4	120.0
Aug 23	107.4	100.9	120.0
Aug 24	104.4	96.0	115.1
Aug 25	106.7	93.4	122.5
Aug 26	104.9	91.3	119.5
Aug 27	111.2	101.1	125.2
Aug 28	107.9	98.9	122.4
Aug 29	108.2	97.2	120.9
Aug 30	107.6	96.4	124.4
Summary	116.1	104.4	133.6

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 93

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	120.1	112.1	126.9
Aug 2	123.3	119.8	132.8
Aug 3	128.8	119.4	138.1
Aug 4	132.1	128.3	138.6
Aug 5	126.9	103.3	141.6
Aug 6	135.8	132.4	142.3
Aug 7	135.7	128.6	142.7
Aug 8	133.3	130.0	138.4
Aug 9	134.7	128.9	142.6
Aug 10	136.4	130.9	142.4
Aug 11	134.0	123.9	140.0
Aug 12	134.7	128.2	140.9
Aug 13	136.6	127.8	144.1
Aug 14	137.9	133.3	144.3
Aug 15	126.3	75.8	138.9
Aug 16	136.1	133.0	141.4
Aug 17	136.8	131.3	145.1
Aug 18	139.6	137.0	143.4
Aug 19	138.7	135.9	143.9
Aug 20	138.5	132.5	143.6
Aug 21	138.1	132.5	144.3
Aug 22	137.5	116.6	143.3
Aug 23	137.6	134.9	142.2
Aug 24	137.2	133.4	143.2
Aug 25	136.7	131.9	143.7
Aug 26	136.3	131.4	143.8
Aug 27	137.6	130.8	145.1
Aug 28	136.2	132.5	142.4
Aug 29	136.2	132.0	142.4
Aug 30	121.5	76.9	141.8
Summary	134.0	120.1	139.6

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 94

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	159.3	157.8	162.0
Aug 2	158.1	156.3	160.6
Aug 3	162.4	157.2	167.4
Aug 4	164.6	159.2	167.8
Aug 5	164.8	157.7	167.9
Aug 6	165.5	163.2	167.5
Aug 7	164.0	161.1	165.9
Aug 8	162.8	161.8	165.4
Aug 9	162.4	160.6	165.2
Aug 10	164.9	161.5	169.1
Aug 11	163.3	152.6	166.7
Aug 12	161.9	160.6	164.8
Aug 13	164.0	161.0	167.8
Aug 14	164.5	161.8	168.2
Aug 15	162.9	147.3	169.1
Aug 16	164.4	162.4	167.4
Aug 17	164.3	160.5	168.3
Aug 18	163.8	161.1	166.0
Aug 19	159.9	157.3	162.4
Aug 20	158.6	154.9	163.3
Aug 21	158.0	153.3	163.2
Aug 22	155.9	147.6	159.7
Aug 23	153.1	151.4	155.5
Aug 24	156.9	150.4	162.0
Aug 25	159.4	155.5	164.4
Aug 26	158.8	153.8	164.4
Aug 27	160.5	155.1	164.6
Aug 28	160.1	158.0	162.7
Aug 29	158.8	157.3	161.5
Aug 30	159.2	155.5	164.9
Summary	161.2	153.1	165.5

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 95

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	131.9	130.7	133.1
Aug 2	130.8	128.8	132.9
Aug 3	131.0	127.1	134.3
Aug 4	133.2	130.4	134.4
Aug 5	128.3	104.3	135.0
Aug 6	133.7	133.0	134.8
Aug 7	133.5	132.9	134.4
Aug 8	133.1	132.8	134.0
Aug 9	133.3	132.2	134.5
Aug 10	133.6	132.5	134.5
Aug 11	133.3	120.6	134.4
Aug 12	133.8	133.5	134.3
Aug 13	133.7	133.4	134.2
Aug 14	133.8	133.5	134.4
Aug 15	128.5	99.4	134.3
Aug 16	133.8	133.4	134.5
Aug 17	133.8	133.3	134.4
Aug 18	133.6	133.3	134.1
Aug 19	133.4	133.0	133.9
Aug 20	133.1	132.7	133.6
Aug 21	133.0	132.7	133.4
Aug 22	132.7	117.1	133.9
Aug 23	133.2	132.8	133.6
Aug 24	133.1	132.7	133.5
Aug 25	133.1	132.7	133.9
Aug 26	133.1	132.5	134.0
Aug 27	133.2	132.6	133.8
Aug 28	133.2	132.8	133.9
Aug 29	133.2	132.6	134.1
Aug 30	123.6	98.7	134.0
Summary	132.5	123.6	133.8

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 96

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	133.2	131.5	134.5
Aug 2	132.9	131.9	133.8
Aug 3	132.6	131.8	133.5
Aug 4	132.1	131.2	133.3
Aug 5	127.4	103.8	133.6
Aug 6	132.3	131.6	133.4
Aug 7	132.0	130.3	132.8
Aug 8	131.5	130.5	131.9
Aug 9	131.6	129.2	133.3
Aug 10	131.6	131.0	132.4
Aug 11	130.4	115.5	132.6
Aug 12	131.0	130.0	132.1
Aug 13	131.2	129.9	132.4
Aug 14	131.6	131.0	132.6
Aug 15	125.4	83.9	132.0
Aug 16	131.5	130.6	132.3
Aug 17	130.9	126.6	132.0
Aug 18	131.4	130.8	132.1
Aug 19	131.5	130.7	132.5
Aug 20	131.4	130.8	132.1
Aug 21	131.3	129.8	132.3
Aug 22	130.3	111.4	132.3
Aug 23	131.3	130.6	132.1
Aug 24	131.0	130.3	132.3
Aug 25	131.2	129.9	132.5
Aug 26	131.2	130.1	132.6
Aug 27	131.6	130.5	132.9
Aug 28	131.5	130.5	132.9
Aug 29	131.4	130.5	132.8
Aug 30	117.9	81.4	133.1
Summary	130.7	117.9	133.2

Solid Waste Permit 588 Daily Wellhead Temperature
Averages for Well 97
 Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	159.5	157.3	160.3
Aug 2	157.8	156.4	158.7
Aug 3	155.6	153.8	156.9
Aug 4	153.1	151.4	154.2
Aug 5	150.9	126.5	162.6
Aug 6	151.5	150.1	152.0
Aug 7	150.5	149.6	151.0
Aug 8	149.8	149.4	150.3
Aug 9	149.2	147.6	150.1
Aug 10	148.5	147.7	149.1
Aug 11	147.4	136.2	151.4
Aug 12	147.4	146.0	148.0
Aug 13	146.6	145.4	147.3
Aug 14	146.5	145.6	147.4
Aug 15	145.3	115.5	156.4
Aug 16	147.0	146.1	148.2
Aug 17	145.8	142.0	147.0
Aug 18	146.3	144.8	147.4
Aug 19	147.4	146.8	148.6
Aug 20	147.5	146.4	148.6
Aug 21	147.3	146.1	148.2
Aug 22	147.1	129.0	155.5
Aug 23	146.8	146.3	147.4
Aug 24	146.5	146.0	147.2
Aug 25	146.5	144.6	147.8
Aug 26	146.9	145.8	148.0
Aug 27	147.2	146.4	148.4
Aug 28	146.7	145.8	147.3
Aug 29	146.4	145.0	147.7
Aug 30	144.0	129.4	147.0
Summary	148.6	144.0	159.5

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 98

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	77.1	71.0	87.4
Aug 2	81.4	76.0	96.9
Aug 3	81.8	75.7	94.2
Aug 4	81.0	75.1	99.7
Aug 5	83.7	75.5	98.0
Aug 6	84.1	76.7	98.5
Aug 7	84.8	77.9	97.2
Aug 8	81.9	77.1	93.5
Aug 9	84.5	78.1	98.7
Aug 10	83.7	78.1	94.3
Aug 11	83.0	77.4	95.9
Aug 12	81.4	78.1	88.4
Aug 13	82.0	76.9	93.5
Aug 14	85.0	78.5	97.6
Aug 15	81.3	73.5	96.1
Aug 16	85.5	78.1	99.5
Aug 17	81.7	76.3	97.0
Aug 18	84.1	77.4	96.2
Aug 19	82.2	73.3	99.2
Aug 20	79.7	71.5	94.1
Aug 21	76.8	67.8	100.0
Aug 22	79.6	66.8	101.1
Aug 23	75.3	62.8	94.6
Aug 24	72.6	57.3	94.1
Aug 25	76.2	63.9	96.6
Aug 26	78.5	68.3	96.0
Aug 27	81.3	73.7	97.0
Aug 28	82.0	73.2	96.0
Aug 29	81.9	73.4	100.1
Aug 30	83.8	74.8	100.1
Summary	81.3	72.6	85.5

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 99

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	142.3	141.4	143.5
Aug 2	142.7	142.1	144.7
Aug 3	142.8	142.0	143.9
Aug 4	142.7	141.7	144.6
Aug 5	137.2	111.6	144.5
Aug 6	143.0	142.3	144.3
Aug 7	142.8	141.4	144.2
Aug 8	142.4	141.7	143.7
Aug 9	142.5	141.1	144.2
Aug 10	143.1	141.5	145.0
Aug 11	143.3	126.6	145.0
Aug 12	143.9	143.4	144.5
Aug 13	143.9	143.1	144.8
Aug 14	144.2	143.3	145.3
Aug 15	138.1	103.2	145.2
Aug 16	144.2	143.6	145.1
Aug 17	141.6	137.7	144.5
Aug 18	139.0	137.6	140.4
Aug 19	140.6	139.6	141.9
Aug 20	141.1	140.1	142.7
Aug 21	141.1	139.6	142.4
Aug 22	140.6	114.4	143.6
Aug 23	142.0	141.2	143.2
Aug 24	142.1	141.1	143.6
Aug 25	142.0	140.4	143.6
Aug 26	141.9	126.3	144.5
Aug 27	143.1	141.6	144.7
Aug 28	143.0	142.0	144.6
Aug 29	143.0	141.3	144.5
Aug 30	127.6	88.3	144.8
Summary	141.6	127.6	144.2

Solid Waste Permit 588 Daily Wellhead Temperature
Averages for Well 100
 Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Aug 1	157.9	157.5	158.3
Aug 2	165.7	164.0	166.7
Aug 3	158.1	157.7	158.4
Aug 4	169.8	161.4	175.1
Aug 5	155.6	134.3	159.4
Aug 6	167.5	163.7	174.3
Aug 7	157.9	157.6	158.3
Aug 8	135.3	100.0	172.7
Aug 9	157.8	157.4	158.3
Aug 10	161.2	126.3	178.7
Aug 11	157.0	141.3	158.6
Aug 12	137.8	69.5	171.8
Aug 13	157.6	157.2	158.1
Aug 14	159.2	157.5	163.7
Aug 15	155.7	141.1	159.0
Aug 16	155.4	154.7	156.1
Aug 17	157.7	157.0	158.2
Aug 18	155.6	151.3	162.7
Aug 19	157.5	157.3	158.0
Aug 20	154.4	148.7	163.5
Aug 21	157.3	157.0	157.7
Aug 22	142.3	97.1	148.4
Aug 23	157.1	156.8	157.3
Aug 24	144.6	138.8	157.6
Aug 25	157.0	156.6	157.5
Aug 26	146.8	118.4	161.6
Aug 27	157.2	156.9	157.6
Aug 28	150.2	149.1	151.0
Aug 29	157.1	156.8	157.6
Aug 30	132.9	97.7	150.2
Summary	157.3	153.4	158.2

APPENDIX D | SWP 588 DAILY BOREHOLE TEMPERATURE AVERAGES

Appendix D Table of Contents

Solid Waste Permit 588 Daily Borehole Temperature Averages for Borehole 1	D-2
Solid Waste Permit 588 Daily Borehole Temperature Averages for Borehole 5	D-3
Solid Waste Permit 588 Daily Borehole Temperature Averages for Borehole 6	D-3
Solid Waste Permit 588 Daily Borehole Temperature Averages for Borehole 8	D-4
Solid Waste Permit 588 Daily Borehole Temperature Averages for Borehole 9	D-5

Solid Waste Permit 588 Daily Borehole Temperature Averages for Borehole 1

Date	Depth from Surface					
	25 ft	50 ft	75 ft	100 ft	125 ft	150 ft
1-Aug	152.8	224.7	224.5	240.3	252.5	260.8
2-Aug	153.0	224.8	224.7	240.4	252.6	260.8
3-Aug	153.0	224.9	224.7	240.3	252.6	260.8
4-Aug	153.1	225.0	224.8	240.4	252.7	260.9
5-Aug	153.2	225.2	225.0	240.4	252.8	260.8
6-Aug	153.3	225.2	224.9	240.3	252.7	260.6
7-Aug	153.4	225.4	224.9	240.2	252.8	260.6
8-Aug	153.3	225.3	224.8	240.1	252.7	260.6
9-Aug	153.7	225.6	225.0	240.2	252.7	260.7
10-Aug	154.4	225.7	225.0	240.0	252.7	260.6
11-Aug	154.0	225.9	225.0	240.1	252.7	260.7
12-Aug	153.3	226.1	225.1	239.9	252.7	260.5
13-Aug	152.5	226.0	225.1	240.9	252.6	260.5
14-Aug	152.7	224.3	225.3	242.3	252.9	260.7
15-Aug	152.5	225.1	225.3	241.3	252.8	260.7
16-Aug	152.7	224.8	225.4	241.6	252.8	260.7
17-Aug	152.5	223.8	225.1	242.3	252.8	260.7
18-Aug	152.5	224.0	225.2	242.1	252.8	260.8
19-Aug	152.2	224.2	225.1	241.5	252.6	260.9
20-Aug	152.1	224.0	225.0	241.4	252.6	261.1
21-Aug	152.3	223.9	225.0	241.6	252.6	261.1
22-Aug	152.3	223.9	225.0	241.6	252.7	261.0
23-Aug	152.2	223.6	224.9	241.7	252.6	260.9
24-Aug	152.0	223.4	224.7	241.6	252.5	260.7
25-Aug	152.1	223.6	224.9	241.7	252.6	260.7
26-Aug	152.3	222.3	225.0	243.0	252.7	260.9
27-Aug	152.5	223.2	225.0	242.4	252.8	260.9
28-Aug	152.8	223.7	225.1	242.1	252.9	261.0
29-Aug	153.0	223.5	225.1	242.3	252.9	261.0
30-Aug	153.0	223.6	225.2	242.3	253.0	261.1
31-Aug	152.8	223.6	225.1	242.2	253.0	261.0
Average	152.8	224.5	225.0	241.2	252.7	260.8

Solid Waste Permit 588 Daily Borehole Temperature Averages for Borehole 5

Date	Depth from Surface							
	25 ft	50 ft	75 ft	100 ft	125 ft	150 ft	175 ft	200 ft
1-Aug	146.1	209.9	210.3	221.8	230.6	230.3	216.8	199.7
2-Aug	149.2	210.1	210.5	222.0	230.7	230.5	217.0	200.0
3-Aug	145.8	210.1	210.5	222.0	230.8	230.5	217.0	200.0
4-Aug	143.7	209.9	210.3	221.7	230.5	230.2	216.6	199.8
5-Aug	159.0	210.0	210.4	221.9	230.7	230.4	216.6	199.9
6-Aug	173.8	210.0	210.4	221.8	230.7	230.3	216.2	199.9
7-Aug	178.7	210.1	210.4	221.9	230.6	230.4	215.8	199.9
8-Aug	181.2	209.8	210.2	221.6	230.3	230.0	214.6	199.6
9-Aug	179.9	210.0	210.4	221.7	230.5	230.2	212.9	199.7
10-Aug	168.9	210.0	210.4	221.7	230.5	230.1	210.7	199.7
11-Aug	160.2	209.8	210.2	221.5	230.3	230.0	209.1	199.5
12-Aug	160.7	209.8	210.2	221.5	230.3	230.0	207.9	199.6
13-Aug	146.5	209.8	210.2	221.7	230.4	230.0	207.2	199.5
14-Aug	143.8	209.9	210.3	221.5	230.4	230.0	206.7	199.6
15-Aug	159.8	209.8	210.2	221.6	230.3	229.9	206.3	199.5
16-Aug	166.0	209.9	210.3	221.7	230.4	230.0	206.0	199.6
17-Aug	149.6	209.8	210.1	221.5	230.3	229.8	205.7	199.4
18-Aug	145.7	209.7	210.1	221.6	230.4	229.9	205.6	199.5
19-Aug	143.8	209.7	210.1	221.6	230.5	230.0	205.8	199.5
20-Aug	143.8	209.7	210.0	221.5	230.3	229.8	206.8	199.3
21-Aug	142.8	209.7	210.1	221.6	230.4	230.0	209.0	199.4
22-Aug	143.6	209.7	210.1	221.5	230.3	229.9	210.3	199.3
23-Aug	143.2	209.6	210.0	221.5	230.1	229.7	211.3	199.2
24-Aug	142.9	209.6	209.9	221.4	230.1	229.7	211.8	199.1
25-Aug	142.0	209.6	210.0	221.4	230.1	229.6	212.1	199.1
26-Aug	142.9	209.6	210.0	221.3	230.2	229.7	211.6	199.1
27-Aug	152.4	209.8	210.2	221.6	230.4	229.9	210.2	199.3
28-Aug	150.2	209.7	210.1	221.4	230.2	229.7	209.2	199.1
29-Aug	170.3	209.7	210.1	221.4	230.2	229.7	208.8	199.1
30-Aug	182.3	209.7	210.2	221.4	230.3	229.8	208.9	199.1
31-Aug	181.2	209.7	210.1	221.4	230.1	229.7	209.2	199.0
Average	156.1	209.8	210.2	221.6	230.4	230.0	210.8	199.5

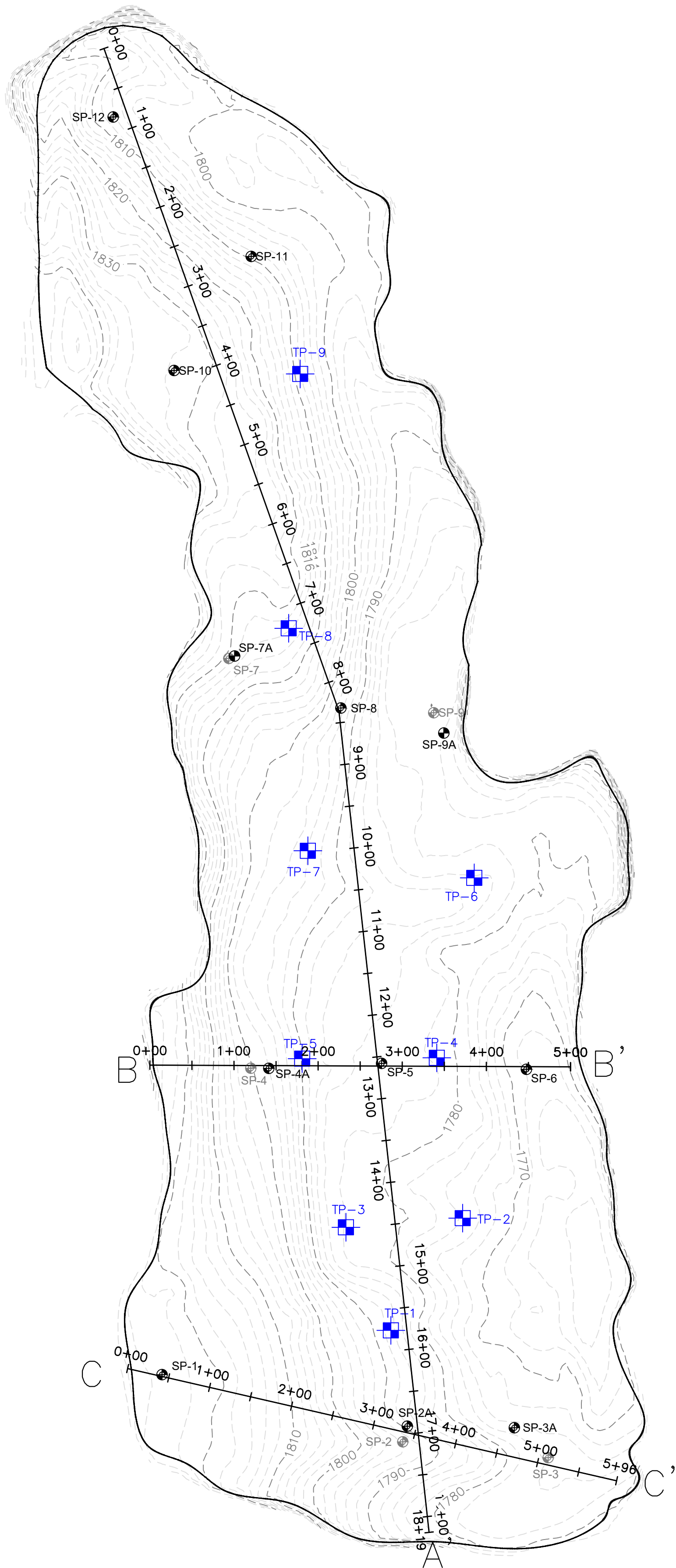
Solid Waste Permit 588 Daily Borehole Temperature Averages for Borehole 8

Date	Depth from Surface							
	25 ft	50 ft	75 ft	100 ft	125 ft	150 ft	175 ft	200 ft
1-Aug	182.5	193.1	193.3	195.3	199.3	199.0	184.9	166.0
2-Aug	182.8	193.2	193.4	195.3	199.4	199.1	185.0	166.0
3-Aug	182.4	193.2	193.4	195.4	199.4	199.1	184.9	166.0
4-Aug	181.8	193.1	193.2	195.3	199.2	198.8	184.6	165.5
5-Aug	182.3	193.3	193.4	195.5	199.4	199.0	184.7	165.7
6-Aug	181.9	193.4	193.6	195.6	199.6	199.2	184.8	165.9
7-Aug	182.1	193.4	193.6	195.6	199.6	199.1	184.7	165.8
8-Aug	181.7	193.2	193.4	195.4	199.4	198.9	184.4	165.5
9-Aug	182.1	193.3	193.4	195.5	199.5	199.0	184.4	165.6
10-Aug	182.3	193.3	193.5	195.5	199.5	199.0	184.4	165.7
11-Aug	182.5	193.2	193.4	195.4	199.4	198.9	184.3	165.5
12-Aug	181.7	193.2	193.4	195.4	199.4	198.9	184.3	165.6
13-Aug	178.2	193.3	193.4	195.4	199.4	198.9	184.4	165.8
14-Aug	178.3	193.3	193.5	195.5	199.4	199.1	184.5	165.9
15-Aug	181.3	193.3	193.4	195.5	199.4	198.9	184.4	165.8
16-Aug	181.4	193.4	193.6	195.6	199.5	199.1	184.6	166.0
17-Aug	178.4	193.1	193.3	195.3	199.2	198.8	184.3	165.7
18-Aug	171.5	193.3	193.5	195.5	199.4	199.1	184.6	165.9
19-Aug	176.4	193.3	193.5	195.4	199.4	199.0	184.6	165.8
20-Aug	178.2	193.3	193.4	195.4	199.3	198.9	184.5	165.8
21-Aug	176.6	193.2	193.3	195.4	199.2	198.9	184.5	165.6
22-Aug	178.3	193.3	193.5	195.4	199.4	199.0	184.7	165.8
23-Aug	179.0	193.2	193.3	195.3	199.2	198.8	184.5	165.6
24-Aug	180.1	193.1	193.3	195.2	199.2	198.7	184.6	165.4
25-Aug	180.9	193.1	193.3	195.4	199.2	198.8	184.8	165.4
26-Aug	181.4	193.1	193.3	195.2	199.2	198.7	185.0	165.1
27-Aug	181.9	193.3	193.5	195.4	199.4	199.0	185.7	165.3
28-Aug	182.0	193.3	193.5	195.5	199.3	198.9	186.1	164.8
29-Aug	181.9	193.3	193.5	195.5	199.3	198.9	186.4	164.3
30-Aug	182.8	193.3	193.5	195.5	199.3	198.9	186.6	164.3
31-Aug	183.2	193.3	193.6	195.5	199.3	198.9	186.7	164.0
Average	180.6	193.2	193.4	195.4	199.4	198.9	184.9	165.5

Solid Waste Permit 588 Daily Borehole Temperature Averages for Borehole 9

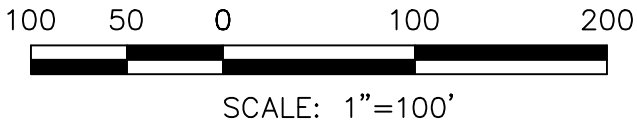
Date	Depth from Surface							
	25 ft	50 ft	75 ft	100 ft	125 ft	150 ft	175 ft	200 ft
1-Aug	109.4	148.9	148.2	148.1	142.6	129.7	114.0	105.3
2-Aug	109.6	148.9	148.2	148.3	142.9	130.0	114.4	105.5
3-Aug	109.6	149.0	148.4	148.2	142.8	129.9	114.6	105.4
4-Aug	109.7	149.2	148.7	148.1	142.8	130.0	114.9	105.5
5-Aug	109.9	149.6	149.1	148.2	142.9	130.1	115.0	105.3
6-Aug	109.7	149.2	148.6	148.2	142.8	130.0	114.9	105.1
7-Aug	109.7	149.2	148.6	148.2	142.8	129.9	114.8	105.0
8-Aug	109.5	149.1	148.5	148.1	142.6	129.7	114.3	104.9
9-Aug	109.7	149.3	148.7	148.2	142.8	130.0	114.0	105.1
10-Aug	109.7	149.3	148.8	148.1	142.7	129.9	114.7	105.0
11-Aug	109.7	149.3	148.7	148.1	142.6	129.9	115.0	105.1
12-Aug	109.4	149.1	148.5	148.0	142.6	129.8	115.0	105.0
13-Aug	109.3	149.1	148.5	148.0	142.6	129.9	115.2	105.1
14-Aug	109.5	149.3	148.7	148.2	142.8	130.1	115.5	105.4
15-Aug	109.4	149.3	148.6	148.0	142.7	130.0	115.4	105.3
16-Aug	109.6	149.2	148.6	148.3	142.9	130.2	115.7	105.4
17-Aug	109.5	149.1	148.5	148.2	142.7	130.1	115.4	105.3
18-Aug	109.5	149.2	148.6	148.3	142.8	130.1	113.7	106.2
19-Aug	109.4	149.1	148.6	148.1	142.6	130.0	113.6	106.9
20-Aug	109.4	149.2	148.7	148.0	142.7	129.9	114.1	107.1
21-Aug	109.3	149.1	148.6	148.0	142.5	129.8	114.1	107.0
22-Aug	109.3	149.1	148.5	148.2	142.7	129.9	114.3	107.0
23-Aug	109.2	149.0	148.3	148.1	142.6	129.8	114.3	106.7
24-Aug	109.2	148.8	148.2	147.8	142.4	129.5	114.4	106.3
25-Aug	109.1	148.9	148.3	147.9	142.5	129.6	114.4	105.8
26-Aug	109.3	149.1	148.5	148.0	142.6	129.8	114.5	105.2
27-Aug	109.3	149.0	148.3	148.2	142.7	129.7	114.2	104.3
28-Aug	109.4	149.1	148.5	148.1	142.7	129.6	113.9	103.1
29-Aug	109.5	149.2	148.6	148.1	142.7	129.5	114.0	102.0
30-Aug	109.7	149.3	148.8	148.1	142.7	129.4	113.3	100.9
31-Aug	109.9	149.7	149.3	147.9	142.7	129.3	112.3	99.8
Average	109.5	149.2	148.6	148.1	142.7	129.8	114.4	105.1

APPENDIX E | MONTHLY TOPOGRAPHY ANALYSIS

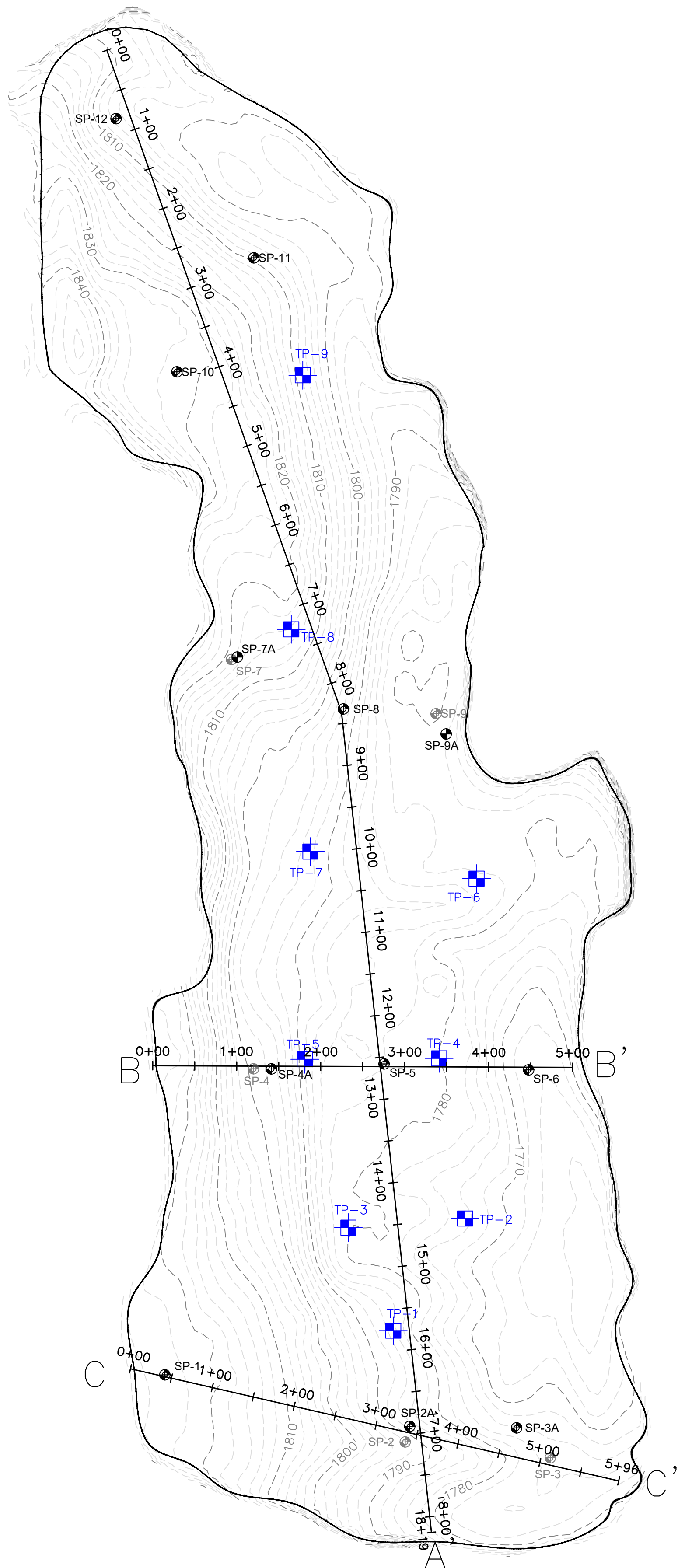


- LEGEND**
- MAJOR CONTOURS (EVERY 10')
 - MINOR CONTOURS (EVERY 2')
 - APPROXIMATE SIDEWALL LOCATION
 - SP-8 SETTLEMENT PLATE
 - SP-9 DECOMMISSIONED SETTLEMENT PLATE
 - TP-3 TEMPERATURE MONITORING PROBE

- NOTES:**
- GRADES SHOWN AS CONTOUR LINES ONLY WITHIN THE PERMIT 588 BOUNDARY REPRESENT THE TOPOGRAPHY CAPTURED ON AUGUST 21, 2025 BY SCS ENGINEERS.
 - ANY DETERMINATION OF TOPOGRAPHY OR CONTOURS, OR ANY DEPICTION OF PHYSICAL IMPROVEMENTS, PROPERTY LINES, OR BOUNDARIES IS FOR GENERAL INFORMATION ONLY AND SHALL NOT BE USED FOR DESIGN, MODIFICATION, OR CONSTRUCTION OF IMPROVEMENTS TO REAL PROPERTY OR FLOOD PLAIN DETERMINATION.
 - THE HORIZONTAL DATUM IS STATE PLANE VIRGINIA SOUTH ZONE NAD-83 (2011).
 - THE VERTICAL DATUM IS BASED UPON NAVD-88.

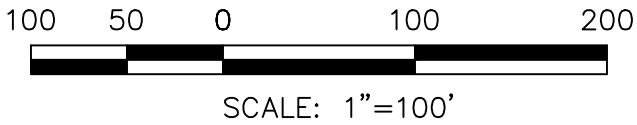


CLIENT		CITY OF BRISTOL INTEGRATED SOLID WASTE MANAGEMENT FACILITY		AUGUST 2025		NO.		REVISION		DATE	
SCS ENGINEERS		STEARNs, CONRAD AND SCHMIDT CONSULTING ENGINEERS INC.		LANDFILL TOPOGRAPHY		△					
1827 HUNTERS LANE, SUITE 100, BRISTOL, VA 22113		15231 MIDLOTHIAN TPK., MIDLOTHIAN, VA 23113		PROJECT TITLE		△					
PH. (804) 378-7440 FAX. (804) 378-7433		2655 VALLEY DRIVE		MONTHLY TOPOGRAPHY ANALYSIS		△					
		BRISTOL, VIRGINIA 24201		SOLID WASTE PERMIT #588		△					
CADD FILE: SURF COMP		O/A R/W B/W				△					
DATE: 9/3/2026		PROJ. NO. 18208.05		DWN. BY: MM		CHK. BY: C/JW		APP. BY: C/JW			
SCALE:		ISSN. BY:		C/JW							
DRAWING NO.											
1											



- LEGEND
- MAJOR CONTOURS (EVERY 10')
 - MINOR CONTOURS (EVERY 2')
 - APPROXIMATE SIDEWALL LOCATION
 - SP-8 SETTLEMENT PLATE
 - SP-9 DECOMMISSIONED SETTLEMENT PLATE
 - TP-3 TEMPERATURE MONITORING PROBE

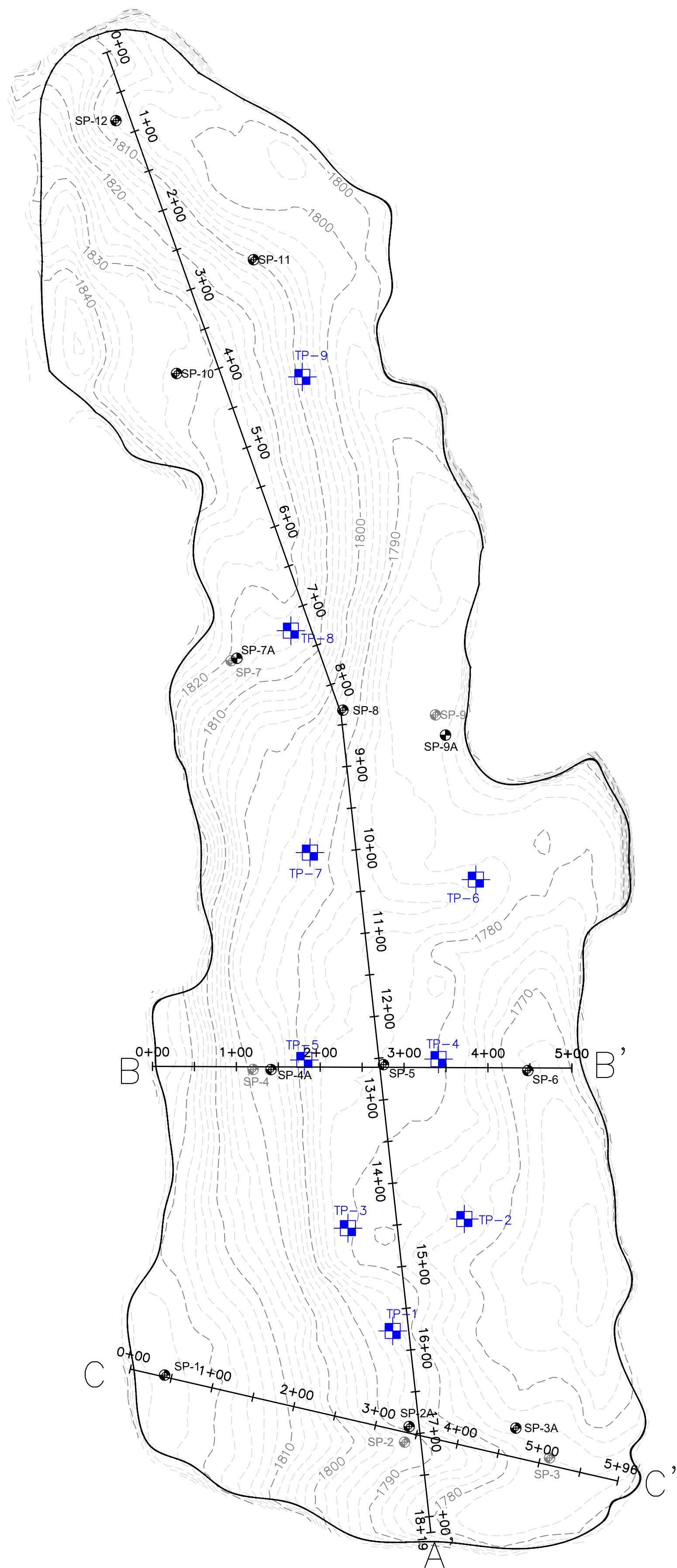
- NOTES:
- GRADES SHOWN AS CONTOUR LINES ONLY WITHIN THE PERMIT 588 BOUNDARY. REPRESENT THE TOPOGRAPHY CAPTURED ON MAY 12, 2026 BY SCS ENGINEERS.
 - ANY DETERMINATION OF TOPOGRAPHY OR CONTOURS, OR ANY DEPICTION OF PHYSICAL IMPROVEMENTS, PROPERTY LINES, OR BOUNDARIES IS FOR GENERAL INFORMATION ONLY AND SHALL NOT BE USED FOR DESIGN, MODIFICATION, OR CONSTRUCTION OF IMPROVEMENTS TO REAL PROPERTY OR FLOOD PLAIN DETERMINATION.
 - THE HORIZONTAL DATUM IS STATE PLANE VIRGINIA SOUTH ZONE NAD-83 (2011).
 - THE VERTICAL DATUM IS BASED UPON NAVD-88.



CLIENT									
CITY OF BRISTOL INTEGRATED SOLID WASTE MANAGEMENT FACILITY									
2655 VALLEY DRIVE									
BRISTOL, VIRGINIA 24201									
SCS ENGINEERS									
STEARNS, CONRAD AND SCHMIDT									
CONSULTING ENGINEERS, INC.									
1827 W. 10TH AVE., SUITE 100									
PH. (804) 378-7440 FAX. (804) 378-7433									
CADD FILE: SURF1 COMP									
DATE: 9/3/2026									
SCALE:									
DRAWING NO.									
2									
8									

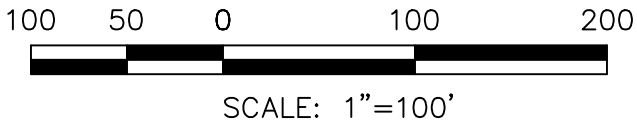
PROJECT NO. 02218208.05		O/A R/W BY: C.J.W.	
ISSN. BY: C.J.W.		APP. BY: C.J.W.	
SRB		CJW	
CHK. BY: C.J.W.		APP. BY: C.J.W.	

SHEET TITLE		MAY 2026		NO.		REVISION		DATE	
PROJECT TITLE		LANDFILL TOPOGRAPHY		△					
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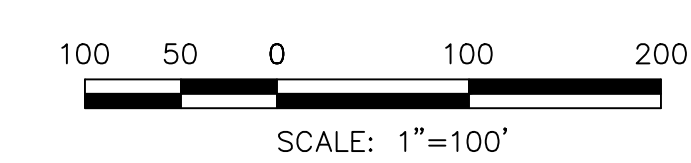
- LEGEND
- MAJOR CONTOURS (EVERY 10')
 - MINOR CONTOURS (EVERY 2')
 - APPROXIMATE SIDEWALL LOCATION
 - SP-8 SETTLEMENT PLATE
 - SP-9 DECOMMISSIONED SETTLEMENT PLATE
 - TP-3 TEMPERATURE MONITORING PROBE

- NOTES:
- GRADES SHOWN AS CONTOUR LINES ONLY WITHIN THE PERMIT 588 BOUNDARY REPRESENT THE TOPOGRAPHY CAPTURED ON JULY 15, 2026 BY SCS ENGINEERS.
 - ANY DETERMINATION OF TOPOGRAPHY OR CONTOURS, OR ANY DEPICTION OF PHYSICAL IMPROVEMENTS, PROPERTY LINES, OR BOUNDARIES IS FOR GENERAL INFORMATION ONLY AND SHALL NOT BE USED FOR DESIGN, MODIFICATION, OR CONSTRUCTION OF IMPROVEMENTS TO REAL PROPERTY OR FLOOD PLAIN DETERMINATION.
 - THE HORIZONTAL DATUM IS STATE PLANE VIRGINIA SOUTH ZONE NAD-83 (2011).
 - THE VERTICAL DATUM IS BASED UPON NAVD-88.

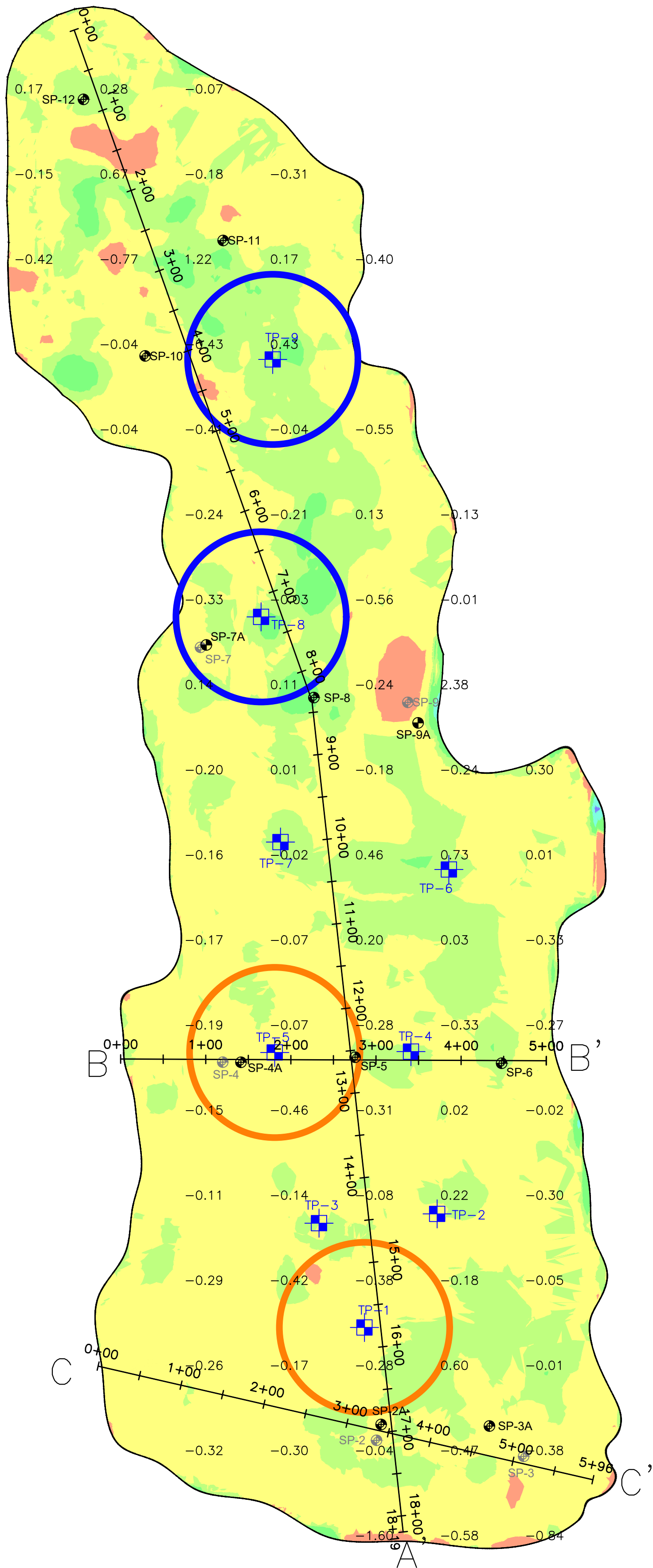


SCS ENGINEERS STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS, INC. 15521 MIDLOTHIAN TPK. - MIDLOTHIAN, VA 23113 PH. (804) 378-7440 FAX. (804) 378-7433		Q/A RW BY: C/JW	
		CHK. BY: C/JW	
CADD FILE: SURF COMP		APP. BY: C/JW	
DATE: 9/3/2026		APP. BY: C/JW	
SCALE:		C/JW	
DRAWING NO. 3		C/JW	

CLIENT CITY OF BRISTOL INTEGRATED SOLID WASTE MANAGEMENT FACILITY 2655 VALLEY DRIVE BRISTOL, VIRGINIA 24201	JULY 2026		NO.	REVISION	DATE
	LANDFILL TOPOGRAPHY				
	PROJECT TITLE				
	MONTHLY TOPOGRAPHY ANALYSIS SOLID WASTE PERMIT #588				
SHEET TITLE		NO.		DATE	



8



LEGEND

MAJOR CONTOURS (EVERY 10')

MINOR CONTOURS (EVERY 2')

APPROXIMATE WASTE BOUNDARY

SP-8 SETTLEMENT PLATE

SP-9 DECOMMISSIONED SETTLEMENT PLATE

-0.39 SPOT ELEVATION ON 100' GRID

TP-8 TEMPERATURE MONITORING PROBE WITH AVERAGE TEMPERATURES AT DEPTH LESS THAN 200 °F

TP-1 TEMPERATURE MONITORING PROBE WITH AVERAGE TEMPERATURES AT DEPTH BETWEEN 200 °F AND 250 °F

TP-2 TEMPERATURE MONITORING PROBE WITH AVERAGE TEMPERATURES AT DEPTH BETWEEN 250 °F AND 300 °F

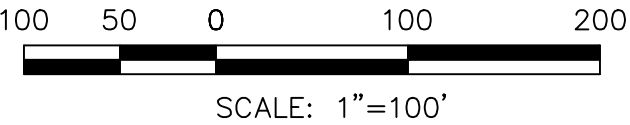
Volume

Base Surface	TOPO	July 15, 2026
Comparison Surface	TOPO	August 7, 2026

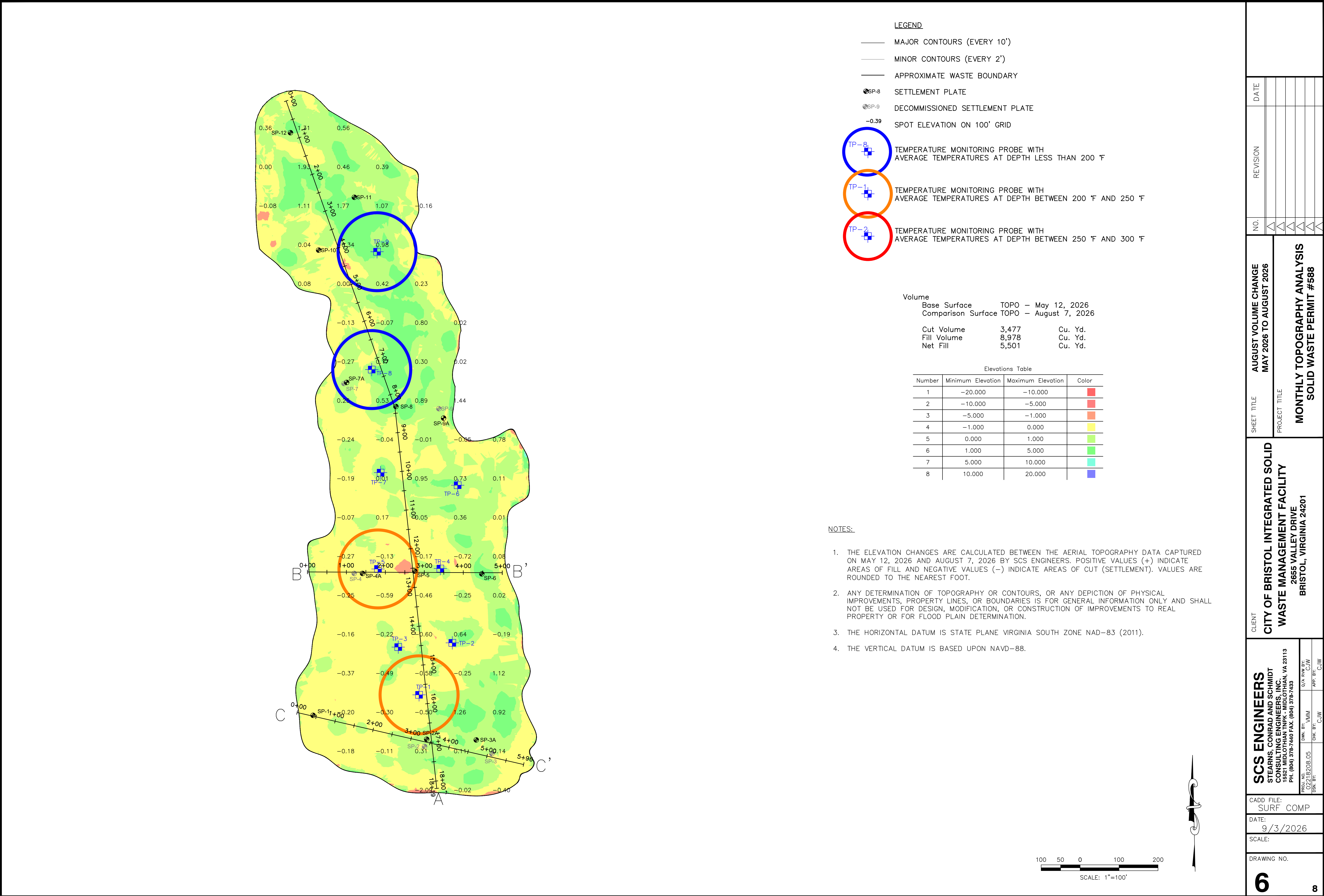
Cut Volume	6,096	Cu. Yd.
Fill Volume	3,068	Cu. Yd.
Net Cut	3,028	Cu. Yd.

Elevations Table			
Number	Minimum Elevation	Maximum Elevation	Color
1	-20.000	-10.000	
2	-10.000	-5.000	
3	-5.000	-1.000	
4	-1.000	0.000	
5	0.000	1.000	
6	1.000	5.000	
7	5.000	10.000	
8	10.000	20.000	

- NOTES:
- THE ELEVATION CHANGES ARE CALCULATED BETWEEN THE AERIAL TOPOGRAPHY DATA CAPTURED ON JULY 15, 2026 AND AUGUST 7, 2026 BY SCS ENGINEERS. POSITIVE VALUES (+) INDICATE AREAS OF FILL AND NEGATIVE VALUES (-) INDICATE AREAS OF CUT (SETTLEMENT). VALUES ARE ROUNDED TO THE NEAREST FOOT.
 - ANY DETERMINATION OF TOPOGRAPHY OR CONTOURS, OR ANY DEPICTION OF PHYSICAL IMPROVEMENTS, PROPERTY LINES, OR BOUNDARIES IS FOR GENERAL INFORMATION ONLY AND SHALL NOT BE USED FOR DESIGN, MODIFICATION, OR CONSTRUCTION OF IMPROVEMENTS TO REAL PROPERTY OR FOR FLOOD PLAIN DETERMINATION.
 - THE HORIZONTAL DATUM IS STATE PLANE VIRGINIA SOUTH ZONE NAD-83 (2011)
 - THE VERTICAL DATUM IS BASED UPON NAVD-88.



CLIENT	SHEET TITLE		AUGUST VOLUME CHANGE		NO.	REVISION	DATE			
	CITY OF BRISTOL INTEGRATED SOLID WASTE MANAGEMENT FACILITY		JULY 2026 TO AUGUST 2026							
	WASTE MANAGEMENT FACILITY		PROJECT TITLE							
	2655 VALLEY DRIVE BRISTOL, VIRGINIA 24201		MONTHLY TOPOGRAPHY ANALYSIS SOLID WASTE PERMIT #588							
SCS ENGINEERS STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS, INC. 15521 MIDLOTHIAN TPK - MIDLOTHIAN, VA 23113 PH: (804) 378-7440 FAX: (804) 378-7433	CADD FILE:		SURF COMP		DRAWING NO.					
	DATE:		9/3/2026		5					
	SCALE:				8					
	PROJ. NO. 2208.05		C/JW							



LEGEND

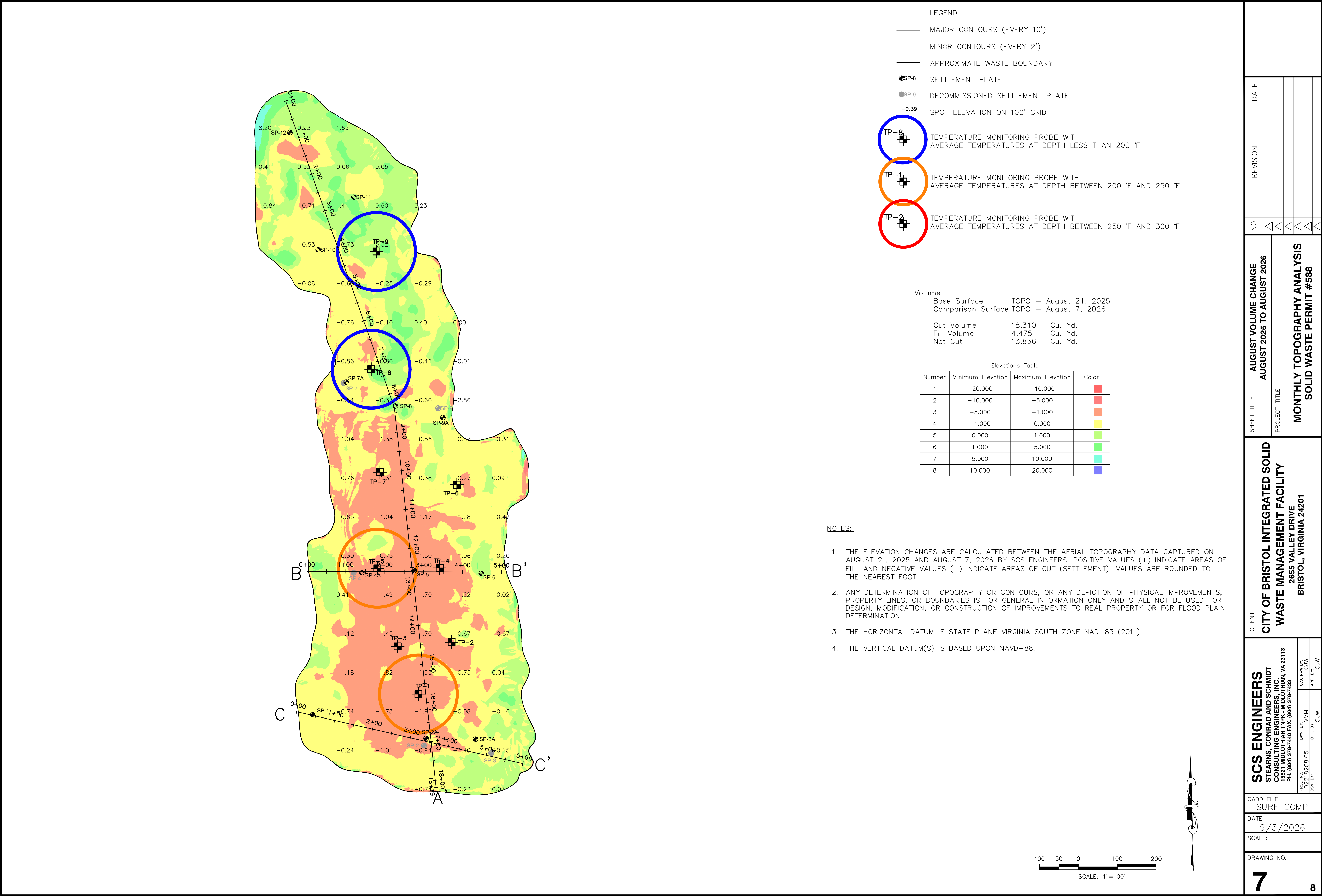
- MAJOR CONTOURS (EVERY 10')
- MINOR CONTOURS (EVERY 2')
- APPROXIMATE WASTE BOUNDARY
- SP-8 SETTLEMENT PLATE
- SP-9 DECOMMISSIONED SETTLEMENT PLATE
- SPOT ELEVATION ON 100' GRID
- TP-8 TEMPERATURE MONITORING PROBE WITH AVERAGE TEMPERATURES AT DEPTH LESS THAN 200 °F
- TP-1 TEMPERATURE MONITORING PROBE WITH AVERAGE TEMPERATURES AT DEPTH BETWEEN 200 °F AND 250 °F
- TP-2 TEMPERATURE MONITORING PROBE WITH AVERAGE TEMPERATURES AT DEPTH BETWEEN 250 °F AND 300 °F

Volume			
Base Surface	TOPO - May 12, 2026		
Comparison Surface	TOPO - August 7, 2026		
Cut Volume	3,477	Cu. Yd.	
Fill Volume	8,978	Cu. Yd.	
Net Fill	5,501	Cu. Yd.	

Elevations Table			
Number	Minimum Elevation	Maximum Elevation	Color
1	-20.000	-10.000	
2	-10.000	-5.000	
3	-5.000	-1.000	
4	-1.000	0.000	
5	0.000	1.000	
6	1.000	5.000	
7	5.000	10.000	
8	10.000	20.000	

- NOTES:
- THE ELEVATION CHANGES ARE CALCULATED BETWEEN THE AERIAL TOPOGRAPHY DATA CAPTURED ON MAY 12, 2026 AND AUGUST 7, 2026 BY SCS ENGINEERS. POSITIVE VALUES (+) INDICATE AREAS OF FILL AND NEGATIVE VALUES (-) INDICATE AREAS OF CUT (SETTLEMENT). VALUES ARE ROUNDED TO THE NEAREST FOOT.
 - ANY DETERMINATION OF TOPOGRAPHY OR CONTOURS, OR ANY DEPICTION OF PHYSICAL IMPROVEMENTS, PROPERTY LINES, OR BOUNDARIES IS FOR GENERAL INFORMATION ONLY AND SHALL NOT BE USED FOR DESIGN, MODIFICATION, OR CONSTRUCTION OF IMPROVEMENTS TO REAL PROPERTY OR FOR FLOOD PLAIN DETERMINATION.
 - THE HORIZONTAL DATUM IS STATE PLANE VIRGINIA SOUTH ZONE NAD-83 (2011).
 - THE VERTICAL DATUM IS BASED UPON NAVD-88.

CLIENT	SHEET TITLE		AUGUST VOLUME CHANGE		NO.	REVISION		DATE		
	CITY OF BRISTOL INTEGRATED SOLID WASTE MANAGEMENT FACILITY		MAY 2026 TO AUGUST 2026							
	PROJECT TITLE									
	MONTHLY TOPOGRAPHY ANALYSIS		SOLID WASTE PERMIT #588							
SCS ENGINEERS	CADD FILE:		SURF COMP		DRAWING NO.					
	DATE:		9/3/2026							
	SCALE:									
	DRAWING NO.									
STEARNs, CONRAD AND SCHMIDT CONSULTING ENGINEERS, INC. 15521 MIDLOTHIAN TPK - MIDLOTHIAN, VA 23113 PH: (804) 378-7440 FAX: (804) 378-7433		DWN: BY: JMM CHK: BY: C.JW		O/A: RW: BY: C.JW APP: BY: C.JW		6		8		



SHEET TITLE	AUGUST VOLUME CHANGE AUGUST 2025 TO AUGUST 2026	DATE					
		REVISION					
PROJECT TITLE	MONTHLY TOPOGRAPHY ANALYSIS SOLID WASTE PERMIT #588	NO.	1	2	3	4	5
CLIENT							
CITY OF BRISTOL INTEGRATED SOLID WASTE MANAGEMENT FACILITY 2655 VALLEY DRIVE BRISTOL, VIRGINIA 24201		SCS ENGINEERS STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS, INC. 15521 MIDLOTHIAN TPK - MIDLOTHIAN, VA 23113 PH: (804) 378-7440 FAX: (804) 378-7433					
CADD FILE: SURF COMP		DATE: 9/3/2026		SCALE:		DRAWING NO.	
7		8					

APPENDIX F | LFG DEWATERING PUMP STROKE COUNTER DATA ANALYSIS

Stroke Counter Data Analysis

During the monthly liquid depth measurement event and during LFG monitoring, SCS collected stroke counter data from the pumps installed in the GCCS extraction wells. These stroke counts were collected from 21 wells from August 1, to August 31, 2026. The recorded stroke count data from each well during August is included in **Table G-1**.

Based on the number of strokes in each well, SCS can estimate the number of gallons of liquid pumped from each well to assess pump performance. SCS assumed that each stroke from a float-style pneumatic pump correlates to approximately 0.3 gallons of liquid removed from the well. Blackhawk piston-style pumps remove approximately 0.11 gallons per stroke.

Table G-1 Summary of Dual Extraction Well Pump Stroke Counter Data

Well	8/1/2026	8/31/2026	# of strokes between measurements	Estimated liquid removed (gallons)
EW36A			-	0
EW49	170807	174256	3,449	1,035
EW50	1738263	1785485	47,222	14,167
EW52	170808	170840	32	10
EW53			-	0
EW54	124962	126174	1,457	437
EW55	274114	321589	47,475	14,243
EW59	4185024	4202836	17,812	5,344
EW60	464867	477876	13,009	3,903
EW61	348774	363666	14,892	4,468
EW62	268915	273526	4,611	1,383
EW65	259553	262215	2,662	799
EW66	1368334	1542500	174,166	52,250
EW67	669232	746185	76,953	23,086
EW68	2799927	2822878	22,951	6,885
EW76			-	0
EW78	651663	726496	74,833	22,450
EW82			-	0
EW85	403896	407195	3,299	990
EW87	340749	340749	-	0
EW88	490472	490472	-	0
EW93	1409957	1409957	-	0
EW94	2055143	2073539	18,396	5,519

EW98	3569754	3743519	173,765	52,130
TP-4	27755	27755	-	0
Total Estimated Liquid Removal				209,095